

ANNUAL STATISTICS OF
CONCENTRATION AND DEPOSITION
DAILY PRECIPITATION AND
AIR MONITORING NETWORK
1987

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Jim Bradley, Minister/ministre

#### ACIDIC PRECIPITATION IN ONTARIO STUDY

ANNUAL STATISTICS OF CONCENTRATION AND DEPOSITION

DAILY PRECIPITATION AND AIR MONITORING NETWORK

1987

Report prepared for:
Air Resources Branch
Ontario Ministry of the Environment

Report prepared by:
A.P.I.O.S. Coordination Office
Ontario Ministry of the Environment

MAY 1990



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#### ACKNOWLEDGEMENT

This report was prepared by Diane Green and Joe Lam of the APIOS Atmospheric Deposition and Chemistry Program. However, the data themselves are a product of the combined efforts of many individuals. Collection of air filter samples was coordinated by Trayling (in Northeastern Region), Steve Elliott Southeastern Region), Scott Kennedy (in Southwestern Region), Wim Smits (in Northwestern Region) and J.P. Varto (in Central Region). Sample handling was carried out by Sue Lampinen and Celine Audette. Chemical analyses were performed at the Laboratory Services and Applied Research Branch under the coordination of Frank Tomassini. Data entry was performed by Diana Rhodes and co-ordination of data entry and records management by Peter Maheras. Joe Lam provided invaluable assistance with systems development. Data validation and overall systems management was performed by Diane Green. All enquiries regarding the reported data should be directed to Neville Reid, Co-Ordinator, Atmospheric Deposition and Chemistry Program (416) 326-1691.

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PART I

INTRODUCTION

#### INTRODUCTION

This report was prepared by Diane Green. The statistical summaries presented in this report pertains to the 1987 analytical results obtained from Acidic Precipitation in Ontario Study (APIOS) daily precipitation and air monitoring network. The relevant data can be obtained on request from the Air Resources Branch of the Ministry. All available data are utilized in the calculations except results reported as being unreliable (i.e. results are identified as unreasonable values by using the validation procedures; detailed description of the validation procedures is available from the Ministry upon request) or approximate (i.e., inexact results are reported due to laboratory difficulties, such as may be encountered in calibration, or when the sample cannot be re-analyzed to confirm the reported values). In a very few cases, concentration levels exceeded the upper limit of the range of the chemical analysis. Rather than using the upper limit, a decision was made to exclude these values from the statistics generated in this report. If a reported vale is labelled as < W, it is replaced by a "zero". W is the level which the analytical technique cannot distinguish from zero. Prior to 1986, if a level was recorded less than the detection limit T, a value corresponding to one half the detection limit is utilized for statistical calculations as reported in the statistical summaries. These values are no longer halved. Note that T is normally about ten times W, and values above the T criterion are considered to be precise and accurate. W corresponds to approximately one standard deviation of low level duplicates of real samples.

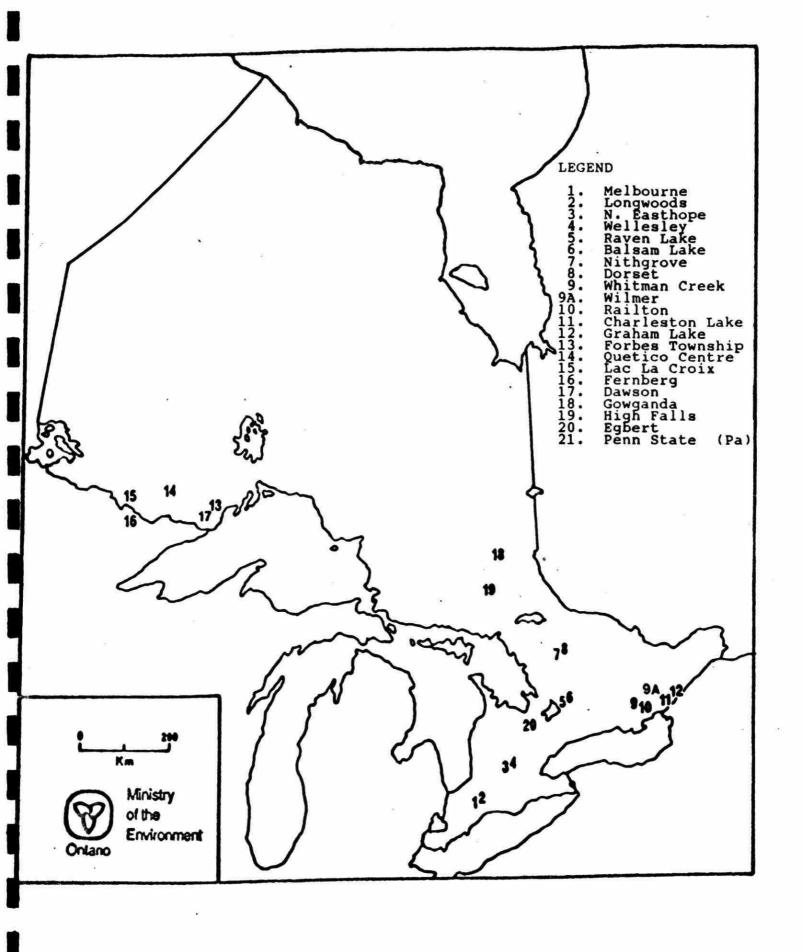
The reported precipitation gauge depth (standard rain gauge or nipher shielded snow gauge) is utilized in the calculation of deposition. If a rain gauge value is not available then the collection sample volume is converted to its equivalent precipitation depth and is used in the deposition calculation.

In the air concentration statistical summaries, "Nitric" represents "Nitric Acid" and "Total NO<sub>3</sub>" represents total nitrates calculated by the summation of particulate "Nitrate" and "Nitric Acid". The air filter measurement for sulphur dioxide includes a contribution from filter measurement for sulphur dioxide includes a contribution from nylon-filter impregnated SO<sub>4</sub>. In these reports the sulphur on nylon filter is interpreted as sulphur dioxide. However, it is possible that organic sulphur compounds also contribute to this loading. Methods do not currently exist to quantify this contribution in routine network operation.

The statistical summaries presented in Parts III to VII include the number of samples, mean (arithmetic/geometric), standard deviation (arithmetic/geometric), maximum, minimum and quartiles and volume weighted means using precipitation gauge depths where appropriate.

#### PART II

STATION DESCRIPTION AND LOCATION MAP



#### ONTARIO MINISTRY OF THE ENVIRONMENT APIOS-ACIDIC PRECIPITATION IN ONTARIO STUDY DAILY PRECIPITATION SITES

STATION ID	MOE REGION	STATION NAME	ELEV (M)	LATITUDE (NORTH)	LONGITUDE (WEST)	UTM GRID CO-ORDINATES (NORTHING) (EASTING)	
000002-02-01-1011	SOUTHWESTERN	LONGWOODS	239	42°53′03"	81°28′50"	4747849	460756
000002-02-01-1021	SOUTHWESTERN	MELBOURNE	213	42°47'12"	81°33'27"	4737061	454401
000002-02-01-1031	SOUTHWESTERN	NORTH EASTHOPE	375	43°24' 22"	80°53'45"	4805705	508434
000002-02-01-2011	SOUTHWESTERN	WELLESLEY	344	43°28' 05"	80°45'33"	4812606	519481
000002-02-01-2031	SOUTHWESTERN	EGBERT	253	44°13′57"	79°46′53"	4898202	597322
000002-02-01-3011	CENTRAL	DORSET	320	45°13′25"	78°55′51"	5009657	662451
000002-02-01-3021	CENTRAL	NITHGROVE	325	45°12′03"	78°04'12"	5009221	730127
000002-02-01-3031	CENTRAL	BALSAM LAKE	259	44°37′45"	78°51'22"	4943776	670063
000002-02-01-3041	CENTRAL	RAVEN LAKE	274	44°36′40"	78°54'43"	4941655	665686
000002-02-01-4011	SOUTHEASTERN	CHARLESTON LAKE	92	44029 50"	76°02'40"	4927414	416963
000002-02-01-4021	SOUTHEASTERN	RAILTON	152	44°22′34"	74°34'45"	4913518	533527
000002-02-01-4031	SOUTHEASTERN	GRAHAM LAKE	130	44°34'50"	76°51'45"	4940930	749090
000002-02-01-4081	SOUTHEASTERN	GOLDEN LAKE	160	45°36′48"	77°12′03"	5053226	328397
000002-02-01-4101	SOUTHEASTERN	WILMER	125	44°26′23"	76°31′50"	4921637	378195
000002-02-01-5061	NORTHEASTERN	GOWGANDA	343	47°39′04"	80°46′32"	5277329	516647
000002-02-01-5171	NORTHEASTERN	HIGH FALLS	215	46°22′55"	81°32′43"	5136412	458068
000002-02-01-6051	NORTHWESTERN	FERNBERG	506	47°56′51"	91°29′26"	5311349	612714
000002-02-01-6071	NORTHWESTERN	QUETICO CENTRE	420	48024'44"	91°12'08"	5363461	633036
000002-02-01-6131	NORTHWESTERN	DAWSON	381	48°33′38"	89°38′60"	5381779	304475
000002-02-01-7011	QUEBEC	SUTTON	243	45°04′35"	72°40′35"	4993846	682898
000002-02-01-7021	PENNSYLVANIA	PENN. STATE	120	40°47′18"	77°56′47"	4519229	251390

#### ONTARIO MINISTRY OF THE ENVIRONMENT APIOS-ACIDIC PRECIPITATION IN ONTARIO STUDY DAILY AMBIENT AIR SITES

STATION ID	MOE REGION	STATION NAME	ELEV (M)	LATITUDE (NORTH)	LONGITUDE (WEST)	UTM GRID CO-ORDINATES (NORTHING) (EASTING)	
000002-21-21-1011	SOUTHWESTERN	LONGWOODS	239	42°53'03"	81°28'50"	4747849	460756
000002-21-21-2011	SOUTHWESTERN	WELLESLEY	344	43°28' 05"	80°45'33"	4812606	519481
000002-21-21-2031	SOUTHWESTERN	EGBERT	<b>25</b> 3	44°13′57"	79°46′53"	4898202	597322
000002-21-21-3011	CENTRAL	DORSET	320	45°13′25"	78°55′51"	5009656	662429
000002-21-21-3031	CENTRAL	BALSAM LAKE	259	44°37′45"	78°51′22"	4943776	670063
000002-21-21-4011	SOUTHEASTERN	CHARLESTON LAKE	92	44°29′50"	76°02′40"	4927414	416963
000002-21-21-5061	NORTHEASTERN	GOWGANDA	343	47°39′04"	80°46′32"	5277329	516647
000002-21-21-5171	NORTHEASTERN	HIGH FALLS	215	46°22′55"	81°32′43"	5136412	458068
0000 <b>02-21-</b> 21-6051	NORTHWESTERN	FERNBERG	506	47°56′51"	91°29′26"	5311349	612714
000002-21-21-7021	PENNSYLVANIA	PENN. STATE	120	40°47'18"	77°56' 47"	4519229	251390



SUMMARY STATISTICS OF PRECIPITATION CONCENTRATION BY STATION

STATION NAME : BALSAM LAKE/DAILY/AEROCHEM

#06

PERIOD OF REPORT : JAN 2,87 TO DEC 25,87

		PRECIP.	CONDUCT.	PH	PH	FREE H+	TOTAL H+ Gran	SULPHATE
		ММ	UMHO/CM	FIELD	LAB	MG/L	MG/L	MG/L
# OF SAMPLES	:	128	117	89	124	124	124	122
MAXIMUM		38.2	98.6	6.9	7.0	0.6026	0.7650	30.20
MINIMUM		0.1	2.5	3.4	3.2	0.0001	0.0164	0.20
RANGE		38.1	96.1	3.4	3.8	0.6025	0.7486	30.00
ARITH. MEAN		5.8	29.2	4.4	4.5	0.0613	0.0971	3.54
ARITH. STD. DEV		6.8	20.6	0.5	0.7	0.0801	0.1111	4.21
GEOM. MEAN		2.7	22.5	4.3	4.5	0.0306	0.0690	2.21
1ST QUARTILE		1.2	14.7	4.1	4.2	0.0209	0.0427	1.20
2ND QUARTILE		3.7	25.2	4.3	4.4	0.0389	0.0658	2.27
3RD QUARTILE	•	7.1	38.1	4.5	4.7	0.0676	0.1035	4.45
VOL. WGT. MEAN	:	*****	26.0	*****	*****	0.0480	0.0874	2.76
		NITRATE	CALCIUM	CHLORIDE	MAGNESIM	POTASSIM	SODIUM	AMMONIUM
		AS N						AS N
		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
# OF SAMPLES	:	122	120	122	120	120	119	123
MAXIMUM	:	4.950	6.200	1.900	0.585	0.390	0.490	3.400
MINIMUM	:	0.010	0.000	0.000	0.000	0.000	0.000	0.000
RANGE	:	4.940	6.200	1.900	0.585	0.390	0.490	3.400
ARITH. MEAN	:	0.801	0.645	0.207	0.075	0.042	0.064	0.479
ARITH. STD. DEV	:	0.706	0.869	0.259	0.109	0.056	0.079	0.547
GEOM. MEAN	:	0.552	0.342	0.157	0.050	0.035	0.040	0.251
1ST QUARTILE	:	0.355	0.170	0.050	0.015	0.010	0.015	0.092
2ND QUARTILE	:	0.600	0.350	0.150	0.035	0.025	0.030	0.300
3RD QUARTILE	:	1.035	0.750	0.245	0.085	0.052	0.085	0.635
VOL. WGT. MEAN	:	0.585	0.406	0.126	0.052	0.026	0.034	0.365

STATION NAME : CHARLESTON LAKE/DAILY/AEROCHEM #11

PERIOD OF REPORT : JAN 2,87 TO DEC 11,87

		PRECIP.	CONDUCT.	PH FIELD	PH LAB	FREE H+ LAB	TOTAL H+ GRAN	SULPHATE
		MM	UMHO/CM			MG/L	MG/L	MG/L
# OF SAMPLES	1	113	89	66	96	96	96	95
MAXIMUM	1	62.8	89.0	5.0	6.7	0.3162	0.3950	13.60
MINIMUM	:	0.0	0.5	3.4	3.5	0.0002	0.0138	0.10
RANGE	:	62.8	88.5	1.6	3.2	0.3160	0.3812	13.50
ARITH. MEAN	:	7.7	35.8	4.1	4.3	0.0804	0.1121	3.44
ARITH. STD. DEV	:	10.2	25.6	0.4	0.5	0.0709	0.0816	2.82
GEOM. MEAN	:	3.3	25.9	4.0	4.3	0.0492	0.0859	2.33
1ST QUARTILE	:	1.4	15.0	3.7	3.9	0.0235	0.0486	1.27
2ND QUARTILE	:	3.9	26.5	4.0	4.3	0.0556	0.0854	2.25
3RD QUARTILE	:	9.1	55.4	4.4	4.6	0.1230	0.1525	5.40
VOL. WGT. MEAN	:	*****	29.0	*****	*****	0.0664	0.0944	2.95
2		NITRATE AS N	CALCIUM	CHLORIDE	MAGNESIM	POTASSIM	SODIUM	AMMONIUM AS N
		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
# OF SAMPLES	:	94	91	90	91	91	91	95
MAXIMUM		3.000	1.860	1.860	0.285	0.150	0.885	1.750
MINIMUM		0.010	0.000	0.000	0.000	0.000	0.000	0.000
RANGE	:	2.990	1.860	1.860	0.285	0.150	0.885	1.750
ARITH. MEAN	:	0.743	0.418	0.285	0.047	0.029	0.056	0.252
ARITH. STD. DEV	:	0.694	0.444	0.319	0.058	0.030	0.100	0.333
GEOM. MEAN		0.468	0.265	0.192	0.035	0.043	0.042	0.156
1ST QUARTILE	:	0.250	0.100	0.100	0.010	0.010	0.015	0.015
2ND QUARTILE	:	0.565	0.230	0.170	0.022	0.020	0.030	0.165
3RD QUARTILE	:	0.985	0.560	0.340	0.055	0.040	0.060	0.360
VOL. WGT. MEAN	1	0.522	0.279	0.208	0.032	0.027	0.037	0.217

#### ONTARIO MINISTRY OF THE ENVIRONMENT APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY SUMMARY STATISTICS OF CONCENTRATION

CALCIUM FIELD.PH LAB.PH SULFATE NITRATE EQUIVALENT CONDUCT PREC. DEPTH UMHO/CM MG/L MG/L MG/L MM 78.0 78 78 78 78 78 # OF SAMPLES 1.29 1.46 MAXIMUM 55.0 95.57 7.20 11.20 0.02 0.00 0.10 MINIMUM 0.1 1.00 3.69 13.45 5.19 1.57 0.31 0.31 ARITH. MEAN 7.3 0.28 0.37 9.2 12.88 0.74 1.65 ARITH. STD. DEV : 0.22 0.20 GEOM. MEAN 7.3 10.43 5.14 1.10 1ST QUARTILE 7.15 4.71 0.70 0.12 0.06 1.5 4.98 0.23 0.18 10.00 1.10 2ND QUARTILE 4.3 1.90 0.41 0.46 3RD QUARTILE 9.1 16.00 5.53 0.23 0.20 VOL. WGT. MEAN 8.2 10.69 5.18 1.26 78 15 15 19 MISSING VALUES : 2.0 15 16 MAGNESIUM FREEH+ CHLORIDE POTASSIUM SODIUM AMMONIUM ACIDITY GRAN LAB MG/L MG/L UG/L UG/L MG/L MG/L MG/L 78 78 78.00 # OF SAMPLES 78 78 78 78 0.250 0.820 0.410 3.750 243.00 204.17 0.72 MAXIMUM 0.06 0.000 0.005 0.000 15.30 MINIMUM 0.00 0.000 0.067 0.075 0.339 38.19 16.85 ARITH. MEAN 0.11 0.049 30.46 28.20 ARITH. STD. DEV : 0.12 0.058 0.128 0.086 0.546 0.033 0.046 0.157 33.05 16.85 0.09 0.028 GEOM. MEAN 1ST QUARTILE 0.04 0.010 0.015 0.020 0.060 24.07 2.96 31.75 10.35 0.025 0.045 0.157 2ND QUARTILE 0.08 0.020 0.072 0.067 0.097 0.402 40.52 19.28 3RD QUARTILE 0.14 34.83 25.70 VOL. WGT. MEAN 0.09 0.031 0.054 0.050 0.283 16 16.00 17 17 16

MISSING VALUES

15

18

STATION NAME : DORSET/DAILY/AEROCHEM

#08

PERIOD OF REPORT : JAN 6,87 TO DEC 28,87

		PRECIP.	CONDUCT.	PH	PH	FREE H+	TOTAL H+	SULPHATE
				FIELD	LAB	LAB	GRAN	
		ММ	UMHO/CM			MG/L	MG/L	MG/L
# OF SAMPLES	:	159	137	86	141	141	141	142
MAXIMUM	:	24.6	100.0	6.6	7.3	0.5129	0.6220	19.30
MINIMUM	:	0.0	2.5	3.3	3.3	0.0001	0.0120	0.20
RANGE	:	24.6	97.5	3.3	4.0	0.5128	0.6100	19.10
ARITH. MEAN	:	4.3	28.8	4.3	4.5	0.0671	0.0909	3.12
ARITH. STD. DEV	:	5.2	20.3	0.4	0.6	0.0801	0.0865	3.29
GEOM. MEAN	:	2.0	22.0	4.3	4.4	0.0347	0.0676	1.99
1ST QUARTILE	:	0.8	12.8	4.1	4.1	0.0202	0.0395	0.92
2ND QUARTILE	:	2.3	25.1	4.3	4.3	0.0484	0.0691	2.10
3RD QUARTILE	:	5.6	39.1	4.6	4.7	0.0767	0.1035	3.85
VOL. WGT. MEAN	:	*****	29.3	*****	*****	0.0605	0.0847	2.91
		NITRATE	CALCYIM	CIII ORTRE	W40W504W			
		NITRATE AS N	CALCIUM	CHLORIDE	MAGNESIM	POTASSIM	SODIUM	MUINOMMA
			No.41	NO 41	40.71			AS N
		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
# OF SAMPLES	:	142	134	142	134	134	134	138
MAXIMUM	:	4.950	2.560	2.700	0.540	0.275	1.750	2.700
MINIMUM	:	0.000	0.000	0.000	0.000	0.000	0.000	0.000
RANGE	:	4.950	2.560	2.700	0.540	0.275	1.750	2.700
ARITH. MEAN	:	0.717	0.362	0.240	0.055	0.053	0.095	0.408
ARITH. STD. DEV	:	0.703	0.444	0.353	0.081	0.054	0.193	0.469
GEOM. MEAN	:	0.474	0.239	0.156	0.037	0.047	0.057	0.225
1ST QUARTILE	:	0.250	0.100	0.080	0.010	0.015	0.030	0.082
2ND QUARTILE	:	0.540	0.200	0.150	0.025	0.035	0.050	0.257
3RD QUARTILE	:	0.985	0.420	0.275	0.060	0.070	0.095	0.532
VOL. WGT. MEAN	1	0.610	0.276	0.188	0.039	0.038	0.086	0.376

### ONTARIO MINISTRY OF THE ENVIRONMENT APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY SUMMARY STATISTICS OF CONCENTRATION

------ STATION =FERNBERG AEROCHEM SITE NO.1 -----NITRATE CALCIUM FIELD.PH LAB.PH SULFATE EQUIVALENT CONDUCT PREC. DEPTH MG/L MM UMHO/CM MG/L MG/L 136 136 # OF SAMPLES 136 136 136 136 : 136.0 7.52 9.80 1.93 2.80 MAXIMUM 69.2 95.04 3.67 0.00 0.02 0.00 0.1 0.50 MINIMUM 0.32 0.25 5.22 1.42 ARITH. MEAN 5.1 13.46 0.75 1.52 0.31 0.40 ARITH. STD. DEV : 9.9 15.18 0.14 0.21 9.29 5.16 0.98 GEOM. MEAN 5.1 0.12 0.05 0.50 1ST QUARTILE 0.3 5.50 4.81 5.14 0.95 0.23 0.12 2ND QUARTILE 1.8 9.45 14.85 0.36 3RD QUARTILE 5.8 5.53 1.71 0.40 0.25 0.18 5.40 1.25 VOL. WGT. MEAN : 3.2 9.56 42 136 45 42 42 53 MISSING VALUES : 9.0 FREEH+ CHLORIDE MAGNESIUM POTASSIUM SODIUM AMMONIUM ACIDITY GRAN LAB UG/L MG/L MG/L MG/L MG/L UG/L MG/L 136 136 136.00 136 136 136 # OF SAMPLES 136 213.80 2,900 252.00 MAXIMUM 0.58 0.510 0.295 0.230 0.000 0.000 15.00 0.03 MINIMUM 0.00 0.000 0.000 37.57 18.61 0.09 0.046 0.036 0.040 0.339 ARITH. MEAN 0.050 0.442 36.81 35.15 ARITH. STD. DEV : 0.10 0.080 0.049 0.028 0.025 0.030 0.192 30.25 18.61 GEOM. MEAN 0.08 2.95 0.010 0.015 0.012 0.065 20.80 1ST QUARTILE 0.04 7.24 0.025 0.230 25.80 2ND QUARTILE 0.06 0.020 0.025 0.050 0.035 0.045 0.450 37.25 15.49 3RD QUARTILE 0.10 27.81 56.23 0.024 0.354 VOL. WGT. MEAN : 0.06 0.032 0.028

56

53

MISSING VALUES :

42

55

43

46

45.00

STATION NAME : LONGWOODS/DAILY/AEROCHEM

#02

PERIOD OF REPORT : JAN 1,87 TO DEC 29,87

		PRECIP.	CONDUCT.	PH FIELD	PH	FREE H+	TOTAL H+	SULPHATE
		ММ	UMHO/CM	LIELD	LAB	LAB	GRAN	
		****	Omito/ On			MG/L	MG/L	MG/L
# OF SAMPLES	:	115	101	58	106	106	105	104
MAXIMUM		73.1	100.0	6.7	8.2	0.3236	0.4290	20.00
MINIMUM	1	0.4	0.5	3.5	3.5	0.0000	0.0012	0.30
RANGE	:	72.7	99.5	3.2	4.8	0.3236	0.4278	19.70
ARITH. MEAN	:	6.2	30.0	4.4	5.0	0.0459	0.0711	4.06
ARITH. STD. DEV	:	8.8	20.4	0.8	1.1	0.0576	0.0657	3.71
GEOM. MEAN	:	3.4	22.5	4.3	4.9	0.0093	0.0493	2.83
1ST QUARTILE	:	1.4	12.8	3.8	4.1	0.0013	0.0234	1.57
2ND QUARTILE	:	3.1	27.1	4.1	4.5	0.0320	0.0515	3.02
3RD QUARTILE	:	7.7	41.3	4.7	5.8	0.0708	0.1000	5.30
VOL. WGT. MEAN	:	*****	26.0	*****	*****	0.0445	0.0697	3.11
		NITRATE AS N	CALCIUM	CHLORIDE	MAGNESIM	POTASSIM	SODIUM	MUINOMMA
		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	AS N Mg/L
# OF SAMPLES	:	103	100	104	100	99	102	97
MAXIMUM	:	5.300	7.400	2.100	1.230	1.400	1.270	2.830
MINIMUM	:	0.000	0.040	0.030	0.010	0.015	0.005	0.000
RANGE	:	5.300	7.360	2.070	1.220	1.385	1.265	2.830
ARITH. MEAN	:	0.784	0.888	0.430	0.155	0.165	0.157	0.547
ARITH. STD. DEV	:	0.770	1.171	0.402	0.214	0.239	0.186	0.458
GEOM. MEAN	:	0.571	0.498	0.304	0.085	0.095	0.093	0.401
1ST QUARTILE	:	0.325	0.220	0.150	0.035	0.045	0.040	0.207
2ND QUARTILE	:	0.655	0.530	0.295	0.075	0.085	0.090	0.430
3RD QUARTILE	:	0.910	1.040	0.510	0.178	0.170	0.230	0.430
VOL. WGT. MEAN	:	0.531	0.473	0.268	0.082	0.122	0.087	0.439

STATION NAME : MELBOURNE/DAILY/AEROCHEM

#01

PERIOD OF REPORT : JAN 1,87 TO DEC 31,87

200		PRECIP.	CONDUCT.	PH	РН	FREE H+	TOTAL H+	SULPHATE
		ММ	UMHO/CM	FIELD	LAB	LAB MG/L	GRAN MG/L	MG/L
						8		1107 E
# OF SAMPLES	2	134	110	51	113	113	113	114
MAXIMUM	:	38.0	99.0	6.7	7.4	0.3020	0.3350	22.00
MINIMUM	:	0.1	1.0	3.5	3.5	0.0000	0.0156	0.25
RANGE	1	37.9	98.0	3.2	3.8	0.3020	0.3194	21.75
ARITH. MEAN	:	5.1	34.6	4.2	4.5	0.0653	0.0909	4.12
ARITH. STD. DEV	:	6.8	22.8	0.7	0.8	0.0616	0.0670	3.57
GEOM. MEAN	2	2.3	26.0	4.2	4.5	0.0286	0.0699	2.89
1ST QUARTILE	:	0.8	17.5	3.8	4.0	0.0166	0.0407	1.85
2ND QUARTILE	:	2.4	29.6	4.0	4.3	0.0490	0.0700	2.90
3RD QUARTILE	:	6.3	47.0	4.4	4.7	0.0923	0.1180	5.22
VOL. WGT. MEAN	:	*****	31.0	****	****	0.0628	0.0843	3.33
		20.000						
		NITRATE AS N	CALCIUM	CHLORIDE	MAGNESIM	POTASSIM	SODIUM	AMMONIUM AS N
		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
# OF SAMPLES	:	113	107	114	107	105	107	112
MAXIMUM		6.200	3.760	1.850	0.805	1.300	0.620	3.850
MINIMUM	:	0.010	0.000	0.010	0.000	0.000	0.000	0.020
RANGE	:	6.190	3.760	1.840	0.805	1.300	0.620	3.830
ARITH. MEAN	1	0.842	0.612	0.316	0.107	0.073	0.090	0.609
ARITH. STD. DEV	:	0.782	0.750	0.285	0.141	0.138	0.114	0.589
GEOM. MEAN	:	0.583	0.334	0.220	0.061	0.055	0.057	0.405
1ST QUARTILE		0.365	0.120	0.130	0.025	0.020	0.025	0.225
2ND QUARTILE	:	0.670	0.330	0.235	0.052	0.040	0.050	0.442
3RD QUARTILE	1	1.050	0.780	0.410	0.125	0.085	0.100	0.793
VOL. WGT. MEAN	:	0.584	0.319	0.193	0.055	0.041	0.046	0.426

STATION NAME : NITHGROVE/DAILY/AEROCHEM

#07

PERIOD OF REPORT : JAN 6,87 TO DEC 26,87

		PRECIP.	CONDUCT.	PH	PH	FREE H+	TOTAL H+	SULPHATE
		20000		FIELD	LAB	LAB	GRAN	
		ММ	UMHO/CM	8		MG/L	MG/L	MG/L
# OF SAMPLES	1	133	115	80	120	120	119	119
MAXIMUM		27.2	91.0	6.7	7.4	0.3715	0.4560	18.00
MINIMUM	:	0.0	2.0	3.5	3.4	0.0000	0.0167	0.15
RANGE	2	27.2	89.0	3.2	4.0	0.3715	0.4393	17.85
ARITH. MEAN	2	5.2	26.1	4.4	4.7	0.0574	0.0803	2.97
ARITH. STD. DEV	1	6.1	20.5	0.6	0.8	0.0705	0.0770	3.20
GEOM. MEAN	:	2.2	19.0	4.4	4.6	0.0211	0.0580	1.84
1ST QUARTILE	:	1.0	10.1	4.1	4.1	0.0107	0.0300	0.90
2ND QUARTILE	:	2.9	20.0	4.4	4.5	0.0339	0.0576	1.92
3RD QUARTILE	:	6.7	36.4	4.7	5.0	0.0708	0.0967	3.88
VOL. WGT. MEAN	;	*****	26.5	*****	****	0.0547	0.0778	2.68
		NITRATE	CALCIUM	CHLORIDE	MAGNESIM	BOTACOTA		
		AS N		CHLORIDE	MAGNESIM	POTASSIM	SODIUM	AMMONIUM AS N
		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
# OF SAMPLES	:	119	117	118	117	117	117	117
MUMIXAM	:	3.150	3.600	0.820	0.725	0.320	0.448	2.550
MINIMUM	:	0.000	0.000	0.000	0.000	0.000	0.000	0.000
RANGE	:	3.150	3.600	0.820	0.725	0.320	0.440	2.550
ARITH. MEAN	:	0.658	0.331	0.187	0.050	0.060	0.063	0.481
ARITH. STD. DEV	:	0.603	0.483	0.179	0.086	0.059	0.066	0.523
GEOM. MEAN	:	0.451	0.180	0.172	0.036	0.045	0.046	0.269
1ST QUARTILE	:	0.235	0.080	0.055	0.010	0.022	0.025	0.137
2ND QUARTILE	:	0.510	0.170	0.140	0.025	0.045	0.040	0.303
3RD QUARTILE	:	0.910	0.370	0.250	0.050	0.067	0.080	0.630
VOL. WGT. MEAN	:	0.534	0.240	0.136	0.036	0.040	0.038	0.361

#### STATION NAME : NORTH EASTHOPE/DAILY/AEROCHEM #03

PERIOD OF REPORT : JAN 1,87 TO DEC 29,87

		PRECIP.	CONDUCT.	PH	PH	FREE H+	TOTAL H+	SULPHATE
				FIELD	LAB	LAB	GRAN	
		ММ	UMHO/CM			MG/L	MG/L	MG/L
# OF SAMPLES	:	148	124	73	129	129	128	130
MAXIMUM	:	38.5	84.8	6.9	7.6	0.3890	0.4310	24.00
MINIMUM	:	0.1	0.5	3.5	3.4	0.0000	0.0106	0.10
RANGE	1	38.4	84.3	3.4	4.2	0.3890	0.4204	23.90
ARITH. MEAN	:	5.9	27.8	4.5	4.9	0.0506	0.0757	3.50
ARITH. STD. DEV	:	7.5	19.2	0.8	1.0	0.0670	0.0757	3.49
GEOM. MEAN	:	2.7	21.4	4.4	4.8	0.0126	0.0527	2.43
1ST QUARTILE	1	1.2	14.0	3.9	4.2	0.0039	0.0238	1.47
2ND QUARTILE	:	3.0	22.9	4.2	4.5	0.0302	0.0558	2.32
3RD QUARTILE	1	7.3	36.7	4.6	5.3	0.0639	0.0900	4.22
VOL. WGT. MEAN	1	*****	27.1	*****	*****	0.0492	0.0725	3.18
		NITRATE	CALCIUM	CHLORIDE	MAGNESIM	POTASSIM	SODIUM	AMMONIUM
		AS N	CALCION.	CHECKIDE	MAGNEGIN	FOTAGGIN	SODION	AS N
		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
# OF SAMPLES	:	130	123	130	123	124	124	127
MAXIMUM	:	6.150	3.940	1.650	0.800	0.620	0.725	2.750
MINIMUM	:	0.010	0.020	0.010	0.000	0.000	0.005	0.010
RANGE	:	6.140	3.920	1.640	0.800	0.620	0.720	2.740
ARITH. MEAN	:	0.721	0.649	0.258	0.121	0.056	0.096	0.565
ARITH. STD. DEV	:	0.788	0.694	0.255	0.148	0.079	0.122	0.473
GEOM. MEAN	:	0.501	0.393	0.173	0.073	0.042	0.057	0.391
1ST QUARTILE	:	0.330	0.220	0.105	0.030	0.020	0.030	0.245
2ND QUARTILE	:	0.535	0.380	0.180	0.067	0.035	0.050	0.450
3RD QUARTILE	:	0.825	0.880	0.290	0.140	0.060	0.105	0.732
VOL. WGT. MEAN	:	0.520	0.443	0.163	0.080	0.032	0.047	0.438

STATION NAME : QUETICO CENTRE/DAILY/AEROCHEM #14

PERIOD OF REPORT : JAN 1,87 TO DEC 31,87

		PRECIP.	CONDUCT.	PH FIELD	PH LAB	FREE H+ LAB	TOTAL H+ Gran	SULPHATE
		ММ	UMHO/CM		LAD .	MG/L	MG/L	MG/L
# OF SAMPLES	:	79	66	0	65	65	66	64
MAXIMUM	:	47.0	53.4	*****	7.2	0.1230	0.1480	6.65
MINIMUM	:	0.1	2.0	*****	3.9	0.0001	0.0128	0.00
RANGE		46.9	51.4	*****	3.3	0.1230	0.1352	6.65
ARITH. MEAN	:	6.8	10.9	*****	5.2	0.0132	0.0325	1.22
ARITH. STD. DEV	:	7.9	8.3	*****	0.7	0.0174	0.0181	1.02
GEOM. MEAN	:	3.4	8.8	*****	5.2	0.0062	0.0298	0.97
1ST QUARTILE	1	2.6	5.8	*****	4.8	0.0041	0.0224	0.57
2ND QUARTILE	:	4.3	7.9	*****	5.1	0.0080	0.0288	0.92
3RD QUARTILE	:	7.3	14.1	*****	5.4	0.0153	0.0355	1.55
VOL. WGT. MEAN	:	*****	9.3	*****	*****	0.0118	0.0308	1.07
		NITRATE AS N MG/L	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIM MG/L	POTASSIM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
# OF SAMPLES		66	61	66	61	61		
MAXIMUM	:	1.580	2.340	0.370	0.265		61	65
MINIMUM		0.030	0.000	0.000	0.000	0.670	0.250	2.000
RANGE		1.550	2.340	0.370	0.265	0.000	0.000	0.000
ARITH. MEAN		0.308	0.293	0.095		0.670	0.250	2.000
ARITH. STD. DEV		0.283	0.395	0.082	0.050	0.065	0.049	0.293
GEOM. MEAN		0.212	0.174		0.068	0.111	0.051	0.336
1ST QUARTILE		0.120	0.070	0.089	0.039	0.038	0.041	0.164
2ND QUARTILE		0.220	0.170	0.040	0.010	0.020	0.015	0.047
3RD QUARTILE		0.395		0.070	0.025	0.030	0.030	0.175
VOL. WGT. MEAN			0.280	0.110	0.047	0.045	0.057	0.420
TOL. NOT. FIEAM		0.243	0.224	0.072	0.037	0.045	0.032	0.240

STATION NAME : RAILTON/DAILY/AEROCHEM

#10

PERIOD OF REPORT : JAN 2,87 TO DEC 25,87

		PRECIP.	CONDUCT.	PH	PH	FREE H+	TOTAL H+	SULPHATE
				FIELD	LAB	LAB	GRAN	
		MM	UMHO/CM			MG/L	MG/L	MG/L
# OF SAMPLES	1	71	60	42	64	64	64	63
MAXIMUM	:	68.2	100.0	5.6	6.7	0.3090	0.3200	16.10
MINIMUM	2	0.2	5.0	3.5	3.5	0.0002	0.0206	0.30
RANGE	:	68.0	95.0	2.1	3.2	0.3088	0.2994	15.80
ARITH. MEAN		10.6	34.6	4.2	4.4	0.0718	0.1039	3.92
ARITH. STD. DEV		11.2	24.1	0.5	0.6	0.0659	0.0786	3.20
GEOM. MEAN	:	6.2	26.6	4.2	4.3	0.0416	0.0800	2.84
1ST QUARTILE	1	4.0	15.0	3.9	4.1	0.0237	0.0444	1.50
2ND QUARTILE	:	6.9	27.8	4.3	4.3	0.0507	0.0770	2.82
3RD QUARTILE	:	13.4	49.3	4.5	4.6	0.0891	0.1325	5.23
VOL. WGT. MEAN	:	*****	27.1	*****	*****	0.0538	0.0850	2.76
		NITRATE	CALCIUM	CHLORIDE	MAGNESIM	BOTAGOTA	*******	
		AS N	CALCION	CHLORIDE	MAGNESIM	POTASSIM	SODIUM	AMMONIUM
		MG/L	MG/L	MG/L	MO /1	140.71	***	AS N
		NO/ L	PIG/ L	MG/L	MG/L	MG/L	MG/L	MG/L
# OF SAMPLES	:	64	61	64	61	60	61	64
MAXIMUM		2.950	4.280	5.870	0.350	0.615	0.330	2.150
MINIMUM	:	0.050	0.020	0.000	0.000	0.000	0.000	0.020
RANGE	1	2.900	4.260	5.870	0.350	0.615	0.330	2.130
ARITH. MEAN	:	0.853	0.433	0.320	0.056	0.072	0.059	0.599
ARITH. STD. DEV	:	0.689	0.672	0.724	0.075	0.096	0.069	0.509
GEOM. MEAN	:	0.598	0.201	0.189	0.038	0.058	0.048	0.377
1ST QUARTILE	:	0.310	0.075	0.100	0.015	0.015	0.015	0.175
2ND QUARTILE	:	0.655	0.180	0.200	0.030	0.042	0.035	0.462
3RD QUARTILE	:	1.125	0.500	0.335	0.065	0.098	0.067	0.900
VOL. WGT. MEAN	:	0.523	0.201	0.319	0.028	0.046	0.049	0.360

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46.00

#### ONTARIO MINISTRY OF THE ENVIRONMENT APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY SUMMARY STATISTICS OF CONCENTRATION

------ STATION =RAVEN LAKE AEROCHEM SITE NO.1 ------EQUIVALENT CONDUCT FIELD.PH LAB.PH SULFATE NITRATE CALCIUM PREC. DEPTH UMHO/CM MG/L MG/L MG/L 182 182.0 182 182 182 182 182 # OF SAMPLES 3.57 3.06 MAXIMUM 35.2 92.20 6.480 7.11 16.50 MINIMUM 0.0 0.30 3.460 3.41 0.05 0.04 0.00 27.83 4.368 4.50 3.11 0.77 0.52 ARITH. MEAN 4.7 0.64 0.467 2.85 0.71 ARITH. STD. DEV : 5.8 20.33 0.69 GEOM. MEAN 4.7 19.66 4.345 4.45 2.00 0.51 0.27 4.067 1.15 0.26 0.10 1ST QUARTILE 0.6 11.26 4.14 2.8 24.20 4.300 4.33 2.20 0.54 0.25 2ND QUARTILE 4.607 4.20 1.00 0.59 3RD QUARTILE 6.6 39.34 4.77 4.405 0.56 0.36 VOL. WGT. MEAN 10.2 24.63 4.54 2.65 47 MISSING VALUES 23.0 54 100 46 47 50 CHLORIDE MAGNESIUM POTASSIUM SODIUM AMMONIUM ACIDITY GRAN FREEH+ LAB MG/L MG/L MG/L MG/L MG/L UG/L UG/L 182.00 182 182 182 182 # OF SAMPLES : 182 MAXIMUM 1.65 0.455 0.290 0.670 2.450 487.00 389.05 15.50 0.08 MINIMUM 0.00 0.000 0.000 0.000 0.000 0.063 0.045 0.089 0.447 91.85 65.57 0.23 ARITH. MEAN ARITH. STD. DEV : 0.26 0.091 0.048 0.110 0.467 88.68 77.61 GEOM. MEAN 0.16 0.035 0.032 0.054 0.232 67.50 65.57 1ST QUARTILE 0.010 0.015 0.025 0.085 39.35 17.08 0.07 2ND QUARTILE 0.15 0.030 0.032 0.050 0.310 70.75 46.77 3RD QUARTILE 0.26 0.070 0.050 0.111 0.636 100.82 72.03 0.031 0.050 0.042 0.352 73.70 38.02 VOL. WGT. MEAN : 0.13

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MISSING VALUES :

47

49

STATION NAME : SUTTON/DAILY/AEROCHEM./7011

PERIOD OF REPORT : JAN 2,87 TO DEC 30,87

		PRECIP.	CONDUCT.	PH	PH	FREE H+	TOTAL H+	SULPHATE
		ММ	UMHO/CM	FIELD	LAB	LAB MG/L	GRAN MG/L	MG/L
		1/15H1.2V	<i></i>			1107.2	1107 =	1107 6
# OF SAMPLES	:	200	110	0	115	115	115	110
MAXIMUM	:	42.2	94.0	*****	7.8	0.3388	0.4150	10.60
MINIMUM	:	0.1	2.0	****	3.5	0.0000	0.0112	0.15
RANGE	:	42.1	92.0	*****	4.3	0.3388	0.4038	10.45
ARITH. MEAN	:	4.7	26.6	*****	4.7	0.0503	0.0748	2.23
ARITH. STD. DEV	:	7.4	21.2	****	0.9	0.0499	0.0583	2.07
GEOM. MEAN	:	1.2	18.7	****	4.6	0.0203	0.0573	1.55
1ST QUARTILE	1	0.2	9.1	*****	4.1	0.0132	0.0323	0.80
2ND QUARTILE	:	1.6	20.0	****	4.5	0.0331	0.0586	1.60
3RD QUARTILE	:	6.1	40.5	****	4.9	0.0794	0.1055	2.95
VOL. WGT. MEAN	:	*****	22.8	*****	*****	0.0435	0.0661	2.10
		NITRATE	CALCIUM	CHLORIDE	MAGNESIM	POTASSIM	SODIUM	AMMONIUM
•		AS N						AS N
		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
# OF SAMPLES	:	111	98	111	98	98	98	110
MAXIMUM	1	2.420	2.260	0.900	0.385	1.030	1.640	3.500
MINIMUM	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
RANGE	:	2.420	2.260	0.900	0.385	1.030	1.640	3.500
ARITH. MEAN	:	0.584	0.262	0.182	0.032	0.042	0.107	0.341
ARITH. STD. DEV	:	0.507	0.375	0.185	0.057	0.110	0.229	0.468
GEOM. MEAN	:	0.389	0.192	0.167	0.036	0.039	0.045	0.176
1ST QUARTILE	:	0.165	0.060	0.060	0.005	0.005	0.015	0.057
2ND QUARTILE	:	0.380	0.140	0.110	0.015	0.020	0.040	0.200
3RD QUARTILE	:	0.945	0.300	0.270	0.030	0.035	0.110	0.400
VOL. WGT. MEAN	:	0.456	0.198	0.121	0.023	0.027	0.072	0.281

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

STATION NAME : WELLESLEY/DAILY/AEROCHEM

#04

PERIOD OF REPORT : JAN 1,87 TO DEC 25,87

# OF SAMPLES : 137			PRECIP.	CONDUCT.	PH	PH	FREE H+	TOTAL H+	SULPHATE
## OF SAMPLES : 137			122		FIELD	LAB	LAB	GRAN	
MAXIMUM : 44.8 98.0 6.4 7.6 0.4169 0.4870 15.00 MINIMUM : 0.1 0.5 3.5 3.5 3.4 0.0000 0.0121 0.15 RANGE : 44.7 97.5 2.9 4.2 0.4168 0.4749 14.85 ARITH. MEAN : 6.0 26.2 4.4 4.9 0.0492 0.0725 3.14 ARITH. STD. DEV : 7.7 21.2 0.6 1.0 0.0697 0.0750 2.86 GEOM. MEAN : 2.9 18.3 4.3 4.8 0.0129 0.0500 2.12 1ST QUARTILE : 1.4 12.3 4.0 4.2 0.0036 0.0216 1.25 2ND QUARTILE : 3.0 19.9 4.3 4.5 0.0299 0.0518 2.38 YOL. WGT. MEAN : ***********************************			MM	UMHO/CM			MG/L	MG/L	MG/L
MINIMUM : 0.1 0.5 3.5 3.4 0.0000 0.0121 0.15 RANGE : 44.7 97.5 2.9 4.2 0.4168 0.4749 14.85 ARITH. MEAN : 6.0 26.2 4.4 4.9 0.0492 0.0725 3.14 ARITH. STD. DEV : 7.7 21.2 0.6 1.0 0.0697 0.0750 2.86 GEOM. MEAN : 2.9 18.3 4.3 4.8 0.0129 0.0500 2.12 IST QUARTILE : 1.4 12.3 4.0 4.2 0.0036 0.0216 1.25 2ND QUARTILE : 3.0 19.9 4.3 4.5 0.0299 0.0518 2.38 3RD QUARTILE : 6.9 35.6 4.6 5.4 0.0589 0.0862 3.82 VOL. WGT. MEAN : ***********************************	# OF SAMPLES	:	137	115	69	119	119	118	118
RANGE : 44.7 97.5 2.9 4.2 0.4168 0.4749 14.85 ARITH. MEAN : 6.0 26.2 4.4 4.9 0.0492 0.0725 3.14 ARITH. STD. DEV : 7.7 21.2 0.6 1.0 0.6697 0.0750 2.86 GEOM. MEAN : 2.9 18.3 4.3 4.8 0.0129 0.0500 2.12 IST QUARTILE : 1.4 12.3 4.0 4.2 0.0036 0.0216 1.25 ZND QUARTILE : 3.0 19.9 4.3 4.5 0.0299 0.0518 2.38 3RD QUARTILE : 6.9 35.6 4.6 5.4 0.0589 0.0662 3.82 VOL. WGT. MEAN : ***********************************	MAXIMUM	2	44.8	98.0	6.4	7.6	0.4169	0.4870	15.00
RANGE : 44.7 97.5 2.9 4.2 0.4168 0.4749 14.85 ARITH. MEAN : 6.0 26.2 4.4 4.9 0.0492 0.0725 3.14 ARITH. STD. DEV : 7.7 21.2 0.6 1.0 0.0697 0.0750 2.86 GEOM. MEAN : 2.9 18.3 4.3 4.8 0.0129 0.0500 2.12 IST QUARTILE : 1.4 12.3 4.0 4.2 0.0036 0.0216 1.25 ZND QUARTILE : 3.0 19.9 4.3 4.5 0.0299 0.0518 2.38 3RD QUARTILE : 6.9 35.6 4.6 5.4 0.0589 0.0862 3.82 VOL. WGT. MEAN : ***********************************	MINIMUM	2	0.1	0.5	3.5	3.4	0.0000	0.0121	0.15
ARITH. MEAN : 6.0 26.2 4.4 4.9 0.0492 0.0725 3.14 ARITH. STD. DEV : 7.7 21.2 0.6 1.0 0.0697 0.0750 2.86 GEOM. MEAN : 2.9 18.3 4.3 4.8 0.0129 0.0500 2.12 1ST QUARTILE : 1.4 12.3 4.0 4.2 0.0036 0.0216 1.25 2ND QUARTILE : 3.0 19.9 4.3 4.5 0.0299 0.0518 2.38 3RD QUARTILE : 6.9 35.6 4.6 5.4 0.0589 0.0862 3.82 VOL. WGT. MEAN : ***********************************	RANGE	2	44.7	97.5	2.9	4.2	0.4168		
ARITH. STD. DEV : 7.7 21.2 0.6 1.0 0.0697 0.0750 2.86 GEOM. MEAN : 2.9 18.3 4.3 4.8 0.0129 0.0500 2.12 1ST QUARTILE : 1.4 12.3 4.0 4.2 0.0036 0.0216 1.25 2ND QUARTILE : 3.0 19.9 4.3 4.5 0.0299 0.0518 2.38 3RD QUARTILE : 6.9 35.6 4.6 5.4 0.0589 0.0862 3.82 VOL. WGT. MEAN : ***********************************	ARITH. MEAN	:	6.0	26.2	4.4	4.9	0.0492	0.0725	
GEOM. MEAN : 2.9 18.3 4.3 4.8 0.0129 0.0500 2.12  1ST QUARTILE : 1.4 12.3 4.0 4.2 0.0036 0.0216 1.25  2ND QUARTILE : 3.0 19.9 4.3 4.5 0.0299 0.0518 2.38  3RD QUARTILE : 6.9 35.6 4.6 5.4 0.0589 0.0662 3.82  VOL. MGT. MEAN : ***********************************	ARITH. STD. DEV	:	7.7	21.2	0.6	1.0			
1ST QUARTILE	GEOM. MEAN	:	2.9	18.3	4.3	4.8	0.0129		
2ND QUARTILE   3.0	1ST QUARTILE		1.4	12.3	4.0	4.2			
STR QUARTILE	2ND QUARTILE	:	3.0	19.9	4.3				
VOL. WGT. MEAN         *******         26.3         *******         *******         0.0483         0.0714         3.17           NITRATE AS N MG/L         CALCIUM CHORIDE MAGNESIM POTASSIM SODIUM AMMONIUM AS N MG/L         MG/L MG/L MG/L MG/L MG/L MG/L MG/L MG/L	3RD QUARTILE	:	6.9	35.6	4.6	5.4	그 그 그 그 그 그 그 그 그 그 그 그 그 그 그 그 그 그 그	2007 BS3177 200	
NITRATE	VOL. WGT. MEAN	:	*****	26.3	*****	*****			
AS N MG/L MG/L MG/L MG/L MG/L MG/L MG/L MG/L	8								
AS N MG/L MG/L MG/L MG/L MG/L MG/L MG/L MG/L			NITRATE	CALCIUM	CHLORIDE	MAGNESIM	POTASSIM	SODIUM	AMMONIUM
# OF SAMPLES : 118 110 118 110 110 109 114  MAXIMUM : 3.500 6.600 11.500 1.010 1.260 0.545 2.300  MINIMUM : 0.010 0.000 0.000 0.000 0.000 0.000  RANGE : 3.490 6.600 11.500 1.010 1.260 0.545 2.300  ARITH. MEAN : 0.627 0.534 0.299 0.094 0.046 0.069 0.534  ARITH. STD. DEV : 0.582 0.857 1.058 0.152 0.123 0.078 0.426  GEOM. MEAN : 0.426 0.311 0.150 0.053 0.036 0.047 0.398  1ST QUARTILE : 0.300 0.130 0.095 0.020 0.015 0.025 0.230  2ND QUARTILE : 0.500 0.280 0.160 0.045 0.025 0.040 0.457			AS N						
MAXIMUM         :         3.500         6.600         11.500         1.010         1.260         0.545         2.300           MINIMUM         :         0.010         0.000         0.053         0.046         0.069         0.534         0.426         0.311         0.150         0.053         0.036         0.047         0.398         0.000         0.000         0.025         0.025         0.025         0.025         0.025         0.025         0.045         0.045         0.045         0.040         0.457			MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	
MAXIMUM       :       3.500       6.600       11.500       1.010       1.260       0.545       2.300         MINIMUM       :       0.010       0.000       0.053       0.046       0.069       0.534       0.426       0.311       0.150       0.053       0.036       0.047       0.398       0.152       0.015       0.025       0.025       0.230       0.025       0.025       0.025       0.025       0.040       0.457	# OF SAMPLES	:	118	110	118	110	110	109	114
MINIMUM : 0.010 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 RANGE : 3.490 6.600 11.500 1.010 1.260 0.545 2.300 ARITH. MEAN : 0.627 0.534 0.299 0.094 0.046 0.069 0.534 ARITH. STD. DEV : 0.582 0.857 1.058 0.152 0.123 0.078 0.426 GEOM. MEAN : 0.426 0.311 0.150 0.053 0.036 0.047 0.398 1ST QUARTILE : 0.300 0.130 0.095 0.020 0.015 0.025 0.230 2ND QUARTILE : 0.500 0.280 0.160 0.045 0.025 0.025 0.040 0.457	MAXIMUM	:	3.500	6.600	11.500	1.010	1.260	0.545	
RANGE : 3.490 6.600 11.500 1.010 1.260 0.545 2.300 ARITH. MEAN : 0.627 0.534 0.299 0.094 0.046 0.069 0.534 ARITH. STD. DEV : 0.582 0.857 1.058 0.152 0.123 0.078 0.426 GEOM. MEAN : 0.426 0.311 0.150 0.053 0.036 0.047 0.398 1ST QUARTILE : 0.300 0.130 0.095 0.020 0.015 0.025 0.230 2ND QUARTILE : 0.500 0.280 0.160 0.045 0.025 0.040 0.457	MINIMUM	:	0.010	0.000	0.000	0.000			
ARITH. MEAN : 0.627 0.534 0.299 0.094 0.046 0.069 0.534 ARITH. STD. DEV : 0.582 0.857 1.058 0.152 0.123 0.078 0.426 GEOM. MEAN : 0.426 0.311 0.150 0.053 0.036 0.047 0.398 1ST QUARTILE : 0.300 0.130 0.095 0.020 0.015 0.025 0.230 2ND QUARTILE : 0.500 0.280 0.160 0.045 0.025 0.040 0.457	RANGE	:	3.490					(건물 및 유리 (기계)	
ARITH. STD. DEV: 0.582 0.857 1.058 0.152 0.123 0.078 0.426 GEOM. MEAN : 0.426 0.311 0.150 0.053 0.036 0.047 0.398 1ST QUARTILE : 0.300 0.130 0.095 0.020 0.015 0.025 0.230 2ND QUARTILE : 0.500 0.280 0.160 0.045 0.025 0.040 0.457	ARITH. MEAN	:	0.627			A.T. 1818 1818		1.50 P. (1.50 P.)	
GEOM. MEAN : 0.426	ARITH. STD. DEV	2	0.582	[: [: [: [: ] ] ] [: [: ]					
1ST QUARTILE : 0.300 0.130 0.095 0.020 0.015 0.025 0.230 2ND QUARTILE : 0.500 0.280 0.160 0.045 0.025 0.040 0.457	GEOM. MEAN	:							
2ND QUARTILE : 0.500 0.280 0.160 0.045 0.025 0.040 0.457		:							
		:						2000 (ACC)	
	3RD QUARTILE	:	0.825	0.600	0.260	0.105	0.045	0.077	0.710
VOL. WGT. MEAN : 0.503 0.368 0.181 0.062 0.026 0.039 0.456		:							

STATION NAME : WILMER/DAILY/AEROCHEM

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PERIOD OF REPORT : JAN 2,87 TO DEC 28,87

		PRECIP.	CONDUCT.	PH	PH	FREE H+	TOTAL H+	SULPHATE
		***	2222222	FIELD	LAB	LAB	GRAN	
		MM	UMHO/CM			MG/L	MG/L	MG/L
# OF SAMPLES	1	150	105	62	115	115	114	110
MAXIMUM	:	59.4	99.9	6.8	7.1	0.2692	0.3080	13.40
MINIMUM	:	0.2	3.0	3.5	3.6	0.0001	0.0155	0.10
RANGE	:	59.2	96.9	3.2	3.5	0.2691	0.2925	13.30
ARITH. MEAN	:	6.5	32.3	4.2	4.5	0.0649	0.0899	3.66
ARITH. STD. DEV	:	8.8	24.9	0.6	0.7	0.0665	0.0723	3.04
GEOM. MEAN	:	2.4	23.6	4.2	4.5	0.0305	0.0668	2.46
1ST QUARTILE	:	0.5	13.4	3.8	4.0	0.0153	0.0352	1.25
2ND QUARTILE	:	3.2	22.0	4.1	4.4	0.0372	0.0632	2.52
3RD QUARTILE	:	9.5	45.8	4.5	4.8	0.0966	0.1260	5.42
VOL. WGT. MEAN	:	*****	27.6	*****	****	0.0564	0.0800	3.01
		NITRATE AS N	CALCIUM	CHLORIDE	MAGNESIM	POTASSIM	SODIUM	AMMONIUM AS N
		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
# OF SAMPLES		110	112	109	112	112	112	115
MAXIMUM	:	3.300	3.380	0.810	0.470	0.750	0.611	2.200
MINIMUM	:	0.050	0.000	0.000	0.000	0.000	0.000	0.000
RANGE	:	3.250	3.380	0.810	0.470	0.750	0.611	2.200
ARITH. MEAN	•	0.778	0.446	0.212	0.052	0.061	0.069	0.492
ARITH. STD. DEV	1	0.637	0.591	0.165	0.072	0.096	0.087	0.480
GEOM. MEAN	:	0.551	0.266	0.156	0.039	0.036	0.049	0.272
1ST QUARTILE	:	0.275	0.120	0.090	0.015	0.015	0.020	0.092
2ND QUARTILE	:	0.655	0.200	0.180	0.030	0.035	0.040	0.360
3RD QUARTILE	:	0.980	0.580	0.295	0.062	0.070	0.082	0.710
VOL. WGT. MEAN	:	0.560	0.220	0.161	0.029	0.032	0.043	0.343

#### PART IV

SUMMARY STATISTICS OF PRECIPITATION CONCENTRATION BY REGION

#### STATION NAME : CENTRAL REGION/DAILY PRECIPITATION

PERIOD OF REPORT : JAN 6,87 TO DEC 25,87

		PRECIP.	CONDUCT.	PH	PH	FREE H+	TOTAL H+	SULPHATE
				FIELD	LAB	LAB	GRAN	SOLPHATE
		ММ	UMHO/CM			MG/L	MG/L	MG/L
# OF SAMPLES	:	579	497	337	521	521	F20	
MAXIMUM		300.1	100.0	6.9	7.4	0.6026	520	518
MINIMUM	:	0.0	0.3	3.3	3.2	0.0000	0.7650	30.20
RANGE	:	300.1	99.7	3.5	4.2		0.0120	0.05
ARITH. MEAN	:	5.5	28.0	4.4	4.5	0.6025	0.7530	30.15
ARITH. STD. DEV	:	13.6	20.4	0.5	0.7	0.0631	0.0902	3.18
GEOM. MEAN	:	2.2	20.8	4.3	4.5	0.0772	0.0915	3.40
1ST QUARTILE	1	0.9	12.0	4.1		0.0293	0.0656	2.01
2ND QUARTILE	:	3.0	24.5	4.3	4.1	0.0180	0.0383	1.00
3RD QUARTILE	:	6.6	38.6	4.6	4.4	0.0417	0.0658	2.20
VOL. WGT. MEAN		*****	26.2	4.6 *****	4.7	0.0724	0.1020	4.05
		34571172727	20.2	*****	****	0.0532	0.0795	2.69
		NITRATE	CALCIUM	CHLORIDE	MAGNESIM	POTASSIM	SODIUM	AMMONIUM
		AS N			ж		0001011	AS N
		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
# OF SAMPLES	1	518	503	517	504	505	504	512
MAXIMUM	:	4.950	6.200	2.700	0.725	0.390	1.750	3.400
MINIMUM	:	0.000	0.000	0.000	0.000	0.000	0.000	0.000
RANGE	:	4.950	6.200	2.700	0.725	0.390	1.750	
ARITH. MEAN	:	0.736	0.463	0.216	0.061	0.050	0.079	3.400
ARITH. STD. DEV	:	0.685	0.639	0.275	0.092	0.055	0.125	0.452
GEOM. MEAN	:	0.494	0.254	0.169	0.042	0.041		0.500
1ST QUARTILE	:	0.260	0.100	0.060	0.010	0.015	0.050	0.244
2ND QUARTILE	:	0.550	0.220	0.150	0.030	0.015	0.025	0.103
3RD QUARTILE	:	0.990	0.510	0.255	0.05		0.045	0.288
VOL. WGT. MEAN	:	0.528	0.316	0.205	0.043	0.065	0.090	0.607
CONTRACTOR OF THE PROPERTY OF				0.205	0.043	0.038	0.095	0.339

#### STATION NAME : NORTHWESTERN REGION/DAILY PRECIPITATION

PERIOD OF REPORT : DEC 31,86 TO DEC 19,87

		PRECIP.	CONDUCT.	PH	PH	FREE H+	TOTAL H+	SULPHATE
				FIELD	LAB	LAB	GRAN	SOLFINIE
		ММ	UMHO/CM			MG/L	MG/L	MG/L
# OF SAMPLES	1	282	223	0	218	218	218	221
MAXIMUM	:	100.8	95.6	****	7.5	0.2138	0.2520	11.20
MINIMUM	:	0.1	0.5	*****	3.7	0.0000	0.0128	0.00
RANGE	3	100.7	95.1	*****	3.9	0.2138	0.2392	11.20
ARITH. MEAN	:	6.8	12.7	*****	5.2	0.0165	0.0362	1.40
ARITH. STD. DEV		12.2	12.8	*****	0.7	0.0288	0.0303	1.44
GEOM. MEAN		2.3	9.4	*****	5.2	0.0062	0.0309	1.01
1ST QUARTILE	2	0.8	6.0	*****	4.8	0.0031	0.0223	0.55
2ND QUARTILE	:	3.4	9.0	*****	5.1	0.0080	0.0282	0.97
3RD QUARTILE	:	7.5	14.9	*****	5.5	0.0170	0.0378	1.70
VOL. WGT. MEAN	:	*****	11.3	*****	*****	0.0105	0.0311	1.44
		NITRATE	CALCIUM	CHLORIDE	MAGNESIM	POTASSIM	SODIUM	AMMONIUM
		AS N			IIAGIILGZII	TOTAGGEN	3001011	AS N
		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
# OF SAMPLES	:	223	203	223	204	202	203	220
MAXIMUM	:	1.930	2.800	0.720	0.510	0.820	0.410	3.750
MINIMUM	:	0.020	0.000	0.000	0.000	0.000	0.000	0.000
RANGE	1	1.910	2.800	0.720	0.510	0.820	0.410	3.750
ARITH. MEAN	:	0.314	0.280	0.098	0.048	0.054	0.053	0.326
ARITH. STD. DEV	:	0.292	0.391	0.104	0.070	0.099	0.065	0.445
GEOM. MEAN	:	0.214	0.182	0.104	0.038	0.034	0.044	0.184
1ST QUARTILE	:	0.120	0.060	0.040	0.010	0.015	0.015	0.062
2ND QUARTILE	:	0.230	0.140	0.070	0.025	0.025	0.030	0.183
3RD QUARTILE	:	0.400	0.340	0.115	0.055	0.045	0.060	0.430
VOL. WGT. MEAN	:	0.273	0.204	0.104	0.037	0.084	0.057	0.471

STATION NAME : SOUTHEASTERN REGION/DAILY PRECIPITATION

PERIOD OF REPORT : JAN 2,87 TO DEC 28,87

*0		PRECIP.	CONDUCT.	PH	PH	FREE H+	TOTAL H+	SULPHATE
		***		FIELD	LAB	LAB	GRAN	
		нм	UMHO/CM			MG/L	MG/L	MG/L
# OF SAMPLES	:	334	254	170	275	275	274	268
MAXIMUM	•	68.2	100.0	6.8	7.1	0.3162	0.3950	16.10
MINIMUM	:	0.0	0.5	3.4	3.5	0.0001	0.0138	0.10
RANGE	:	68.2	99.5	3.4	3.6	0.3161	0.3812	16.00
ARITH. MEAN	:	7.8	34.1	4.2	4.4	0.0719	0.1009	3.64
ARITH. STD. DEV	:	9.9	24.9	0.5	0.6	0.0680	0.0775	3.00
GEOM. MEAN	:	3.3	25.1	4.1	4.4	0.0388	0.0761	2.50
1ST QUARTILE	:	1.1	14.1	3.8	4.0	0.0204	0.0411	1.35
2ND QUARTILE	:	4.8	25.6	4.1	4.3	0.0468	0.0744	2.60
3RD QUARTILE		10.6	49.8	4.5	4.7	0.1000	0.1340	5.42
VOL. WGT. MEAN	:	*****	27.9	*****	*****	0.0588	0.0861	2.91
		NITRATE AS N MG/L	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIM MG/L	POTASSIM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
# OF SAMPLES	¥	268	264	263	2//	247	***	2571.0
MAXIMUM	- 2	3.300	4.280	5.870	264	263	264	274
MINIMUM	•	0.010	0.000	0.000	0.470	0.750	0.885	2.200
RANGE		3.290	4.280	5.870	0.000	0.000	0.000	0.000
ARITH. MEAN		0.784	0.433		0.470	0.750	0.885	2.200
ARITH. STD. DEV		0.669	0.564	0.263	0.051	0.053	0.062	0.434
GEOM. MEAN		0.531	0.249	0.417	0.068	0.081	0.088	0.462
1ST QUARTILE		0.280		0.176	0.037	0.043	0.046	0.242
2ND QUARTILE	•		0.100	0.100	0.010	0.010	0.020	0.077
3RD QUARTILE		0.620 1.020	0.220	0.190	0.027	0.030	0.035	0.277
VOL. WGT. MEAN		0.536	0.560	0.320	0.060	0.065	0.070	0.620
TOL. NOT. MEAN	1.5%	0.330	0.233	0.226	0.030	0.034	0.043	0.308

#### STATION NAME I SOUTHWESTERN REGION/DAILY PRECIPITATION

PERIOD OF REPORT : JAN 1,87 TO DEC 25,87

		PRECIP.	CONDUCT.	PH	PH	FREE H+	TOTAL H+	SULPHATE
		MM	UMHO/CM	FIELD	LAB	LAB MG/L	GRAN MG/L	MO //
			3111107 311			MG/ L	MG/ L	MG/L
# OF SAMPLES	:	534	450	251	467	467	464	466
MAXIMUM	:	73.1	100.0	6.9	8.2	0.4169	0.4870	24.00
MINIMUM	:	0.1	0.5	3.5	3.4	0.0000	0.0012	0.10
RANGE		73.0	99.5	3.4	4.9	0.4169	0.4858	23.90
ARITH. MEAN		5.8	29.5	4.4	4.8	0.0528	0.0775	3.69
ARITH. STD. DEV	:	7.7	21.1	0.7	1.0	0.0646	0.0715	3.43
GEOM. MEAN	:	2.8	21.8	4.3	4.7	0.0144	0.0549	2.53
1ST QUARTILE	:	1.2	14.0	3.9	4.1	0.0042	0.0256	1.55
2ND QUARTILE	:	3.0	24.0	4.2	4.4	0.0355	0.0603	2.57
3RD QUARTILE	:	7.2	40.9	4.6	5.4	0.0741	0.1000	4.80
VOL. WGT. MEAN	:	*****	27.5	*****	****	0.0510	0.0742	3.19
		NITRATE	CALCIUM	CHLORIDE	MAGNESIM	POTASSIM	SODIUM	AMMONIUM
		AS N			E21.510.100			AS N
		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
# OF SAMPLES	:	464	440	466	440	438	442	450
MAXIMUM	:	6.200	7.400	11.500	1.230	1.400	1.270	3.850
MINIMUM	:	0.000	0.000	0.000	0.000	0.000	0.000	0.000
RANGE	:	6.200	7.400	11.500	1.230	1.400	1.270	3.850
ARITH. MEAN	:	0.741	0.666	0.321	0.119	0.082	0.102	0.565
ARITH. STD. DEV	:	0.737	0.882	0.599	0.165	0.158	0.133	0.490
GEOM. MEAN	:	0.514	0.376	0.201	0.067	0.052	0.061	0.398
1ST QUARTILE	:	0.340	0.160	0.120	0.027	0.020	0.030	0.233
2ND QUARTILE	:	0.555	0.340	0.210	0.060	0.040	0.055	0.447
3RD QUARTILE	1	0.890	0.840	0.380	0.140	0.085	0.120	0.732
VOL. WGT. MEAN	:	0.532	0.401	0.197	0.070	0.052	0.054	0.440

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

#### PART V

SUMMARY STATISTICS OF WET DEPOSITION BY STATION

#### ONTARIO MINISTRY OF THE ENVIRONMENT SUMMARY STATISTICS OF CALCULATED DEPOSITIONS APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : BALSAM LAKE/DAILY/AEROCHEM

PERIOD OF REPORT : JAN 2, 87 TO DEC 25,87

		PRECIP.	FREE H+ FIELD	FREE H+ LAB	TOTAL H+ Gran	SULPHATE	NITRATE	CALCIUM
		MM	MG/M**2	MG/M**2	MG/M**2	MG/M××2	AS N MG/M**2	MG/M##2
# OF SAMPLES	1	128	89	124	124	122	122	120
MAXIMUM	:	38.2	2.7949	2.7312	10.0800	132.98	21.780	21.708
MINIMUM	:	0.1	0.0006	0.0002	0.0024	0.07	0.018	0.000
RANGE	1	38.1	2.7942	2.7310	10.0776	132.90	21.762	21.708
ARITH. MEAN	:	5.8	0.4432	0.2834	0.5156	16.53	3.504	2.471
ARITH. STD. DEV	:	6.8	0.4918	0.4116	1.0233	23.89	4.196	3.877
GEOM. MEAN	:	2.7	0.2388	0.0895	0.2015	6.73	1.680	1.078
1ST QUARTILE	:	1.2	0.1431	0.0248	0.0628	1.89	0.626	0.461
2ND QUARTILE	:	3.7	0.2601	0.1461	0.2523	9.27	2.486	1.153
3RD QUARTILE	1	7.1	0.5925	0.3401	0.5807	18.65	4.170	2.327
VOL. WGT. MEAN	:	*****	0.3271	0.2767	0.5034	15.89	3.368	2.338

		CHLORIDE	MAGNESIM	POTASSIM	SODIUM	AMMONIUM
		MG/M**2	MG/M**2	MG/M**2	MG/M××2	AS N MG/M**2
# OF SAMPLES	:	122	120	120	119	123
MAXIMUM	1	4.623	3.719	1.386	1.240	19.723
MINIMUM	:	0.000	0.000	0.000	0.000	0.000
RANGE	:	4.623	3.719	1.386	1.240	19.723
ARITH. MEAN	:	0.756	0.319	0.158	0.207	2.169
ARITH. STD. DEV	:	0.935	0.648	0.227	0.229	3.406
GEOM. MEAN	:	0.416	0.135	0.096	0.125	0.749
1ST QUARTILE	:	0.111	0.035	0.025	0.046	0.193
2ND QUARTILE	:	0.456	0.110	0.095	0.115	1.112
3RD QUARTILE	:	0.986	0.285	0.172	0.311	2.439
VOL. WGT. MEAN	:	0.728	0.302	0.150	0.194	2.101

\*\*\*\* : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION

(SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

#### ONTARIO MINISTRY OF THE ENVIRONMENT SUMMARY STATISTICS OF CALCULATED DEPOSITIONS APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : CHARLESTON LAKE/DAILY/AEROCHEM #11

PERIOD OF REPORT : JAN 2, 87 TO DEC 11,87

		PRECIP.	FREE H+ FIELD	FREE H+ LAB	TOTAL H+ GRAN	SULPHATE	NITRATE AS N	CALCIUM
		MM	MG/M××2	MG/M**2	MG/M××2	MG/M××2	MG/M**2	MG/M**2
# OF SAMPLES	1	113	66	96	96	95	94	91
MAXIMUM	1	62.8	6.1441	2.9076	3.6527	151.89	19.550	24.840
MINIMUM	:	0.0	0.0577	0.0001	0.0041	0.03	0.015	0.000
RANGE	:	62.8	6.0864	2.9076	3.6485	151.86	19.535	24.840
ARITH. MEAN	:	7.7	0.9937	0.5211	0.7407	23.39	4.156	2.303
ARITH. STD. DEV	:	10.2	1.0417	0.6497	0.8180	28.65	4.146	3.595
GEOM. MEAN	:	3.3	0.6213	0.2029	0.3540	9.77	1.965	1.158
1ST QUARTILE	1	1.4	0.2741	0.0996	0.1753	3.80	0.828	0.436
2ND QUARTILE	:	3.9	0.6697	0.2640	0.4049	11.69	3.024	1.335
3RD QUARTILE	2	9.1	1.4714	0.6573	0.9499	31.97	5.680	2.386
VOL. WGT. MEAN	2	*****	0.7671	0.5147	0.7317	22.89	4.045	2.164

		CHLORIDE	MAGNESIM	POTASSIM	SODIUM	AMMONIUM AS N
		MG/M××2	MG/M××2	MG/M××2	MG/M**2	MG/M**2
# OF SAMPLES		90	91	91	91	95
MAXIMUM	:	20.700	4.830	2.772	3.515	14.091
MINIMUM	:	0.000	0.000	0.000	0.000	0.000
RANGE	1	20.700	4.830	2.772	3.515	14.091
ARITH. MEAN	:	1.641	0.265	0.220	0.303	1.715
ARITH. STD. DEV	:	2.762	0.559	0.422	0.477	2.554
GEOM. MEAN	:	0.736	0.137	0.162	0.175	0.604
1ST QUARTILE	:	0.309	0.047	0.011	0.051	0.048
2ND QUARTILE	:	0.754	0.108	0.107	0.157	0.776
3RD QUARTILE	:	1.918	0.278	0.217	0.336	2.188
VOL. WGT. MEAN	:	1.608	0.249	0.206	0.284	1.678

\*\*\*\* : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION

(SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

## ONTARIO MINISTRY OF THE ENVIRONMENT APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY SUMMARY STATISTICS OF DEPOSITION

----- STATION=DAWSON AEROCHEM SITE NO.1 -----

		EQUIVALENT PREC. DEPTH	SULFATE	NITRATE	CALCIUM	CHLORIDE	MAGNESIUM
		MM	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2
# OF SAMPLES	:	78.0	78	78	78	78	78
MAXINUM	:	55.0	71.50	8.25	13.72	7.02	2.303
MINIMUM	:	0.1	0.12	0.02	0.00	0.00	0.000
ARITH. MEAN	1	7.3	10.72	1.99	1.78	0.76	0.277
ARITH. STD. DEV	:	9.2	12.11	1.84	2.25	1.22	0.354
GEOM. MEAN	:	3.3	5.78	1.13	1.12	0.46	0.154
1ST QUARTILE	:	1.5	3.30	0.59	0.42	0.18	0.061
2ND QUARTILE	:	4.3	6.88	1.46	1.32	0.34	0.195
3RD QUARTILE	:	9.1	14.56	2.85	2.34	0.87	0.405
VOL. WGT. MEAN	:	VC=	8.92	1.66	1.40	0.63	0.222
MISSING VALUES	:	2.0	15	15	19	15	18
		POTASSIUM	SODIUM	AMMONIUM	ACIDITY GRAN	FREEH+ LAB	
		MG/M**2	MG/M**2	MG/M**2	UG/M**2	UG/M**2	
# OF SAMPLES	:	78	78	78	78	78.00	
MAXIMUM	:	7.975	2.750	26.250	1490.50	581.24	
MINIMUM	:	0.000	0.025	0.000	11.72	0.29	
ARITH. MEAN	:	0.471	0.438	2.443	298.78	114.90	
ARITH. STD. DEV	:	1.231	0.516	4.425	315.27	144.42	
GEOM. MEAN	:	0.189	0.258	0.869	174.43	34.08	
1ST QUARTILE		0.059	0.127	0.305	78.73	8.80	
2ND QUARTILE	2	0.189	0.228	0.993	176.98	47.48	
3RD QUARTILE	:	0.369	0.569	2.643	406.39	152.65	
VOL. WGT. MEAN	:	0.380	0.354	2.006	246.87	210.77	
MISSING VALUES	0.000	17	17	16	16	16.00	

STATION NAME : DORSET/DAILY/AEROCHEM

#08

PERIOD OF REPORT : JAN 6, 87 TO DEC 28,87

		PRECIP.	FREE H+ FIELD	FREE H+ LAB	TOTAL H+ GRAN	SULPHATE	NITRATE AS N	CALCIUM
		MM	MG/M××2	MG/M**2	MG/M××2	MG/M××2	MG/M##2	MG/M××2
# OF SAMPLES	:	159	86	141	141	142	142	134
MAXIMUM	:	24.6	2.8862	2.9535	3.3180	134.85	16.590	16.182
MINIMUM	:	0.0	0.0010	0.0001	0.0012	0.03	0.000	0.000
RANGE	:	24.6	2.8853	2.9533	3.3168	134.82	16.590	16.182
ARITH. MEAN		4.3	0.4470	0.2928	0.4090	14.00	2.930	1.399
ARITH. STD. DEV	:	5.2	0.5424	0.4431	0.5466	21.10	3.399	2.197
GEOM. MEAN	:	2.0	0.2468	0.0948	0.1816	5.32	1.273	0.654
1ST QUARTILE	:	0.8	0.1201	0.0409	0.0803	1.88	0.461	0.260
2ND QUARTILE	:	2.3	0.3061	0.1390	0.2269	7.03	2.005	0.686
3RD QUARTILE	:	5.6	0.5634	0.3599	0.4793	15.49	3.927	1.580
VOL. WGT. MEAN	:	*****	0.3857	0.2614	0.3657	12.59	2.633	1.194

		CHLORIDE	MAGNESIM	POTASSIM	SODIUM	AMMONIUM AS N
		MG/M××2	MG/M**2	MG/M**2	MG/M**2	MG/M**2
# OF SAMPLES	:	142	134	134	134	138
MAXIMUM		12.690	2.371	1.392	12.276	19.520
MINIMUM	:	0.000	0.000	0.000	0.000	0.000
RANGE	:	12.690	2.371	1.392	12.276	19.520
ARITH. MEAN	:	0.903	0.197	0.194	0.433	1.854
ARITH. STD. DEV	:	1.500	0.362	0.242	1.356	2.862
GEOM. MEAN	:	0.398	0.094	0.126	0.162	0.645
1ST QUARTILE	:	0.131	0.024	0.038	0.066	0.174
2ND QUARTILE	:	0.448	0.085	0.111	0.140	0.779
3RD QUARTILE	:	1.132	0.185	0.236	0.294	2.550
VOL. WGT. MEAN	:	0.812	0.168	0.165	0.370	1.625

\*\*\*\* : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

### ONTARIO MINISTRY OF THE ENVIRONMENT APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY SUMMARY STATISTICS OF DEPOSITION

------ STATION=FERNBERG AEROCHEM SITE NO.1 -----

		EQUIVALENT PREC. DEPTH	SULFATE	NITRATE	CALCIUM	CHLORIDE	MAGNESIUM
		MM	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2
# OF SAMPLES	:	136.0	136	136	136	136	136
MOMIXAM	:	69.2	117.64	27.68	24.91	5.54	4.152
MINIMUM	:	0.1	0.00	0.01	0.00	0.00	0.000
ARITH. MEAN	:	5.1	7.30	1.45	1.18	0.35	0.208
ARITH. STD. DEV	:	9.9	17.12	3.19	2.99	0.72	0.508
GEOM. MEAN	:	1.4	2.52	0.53	0.39	0.17	0.082
1ST QUARTILE	:	0.3	0.90	0.24	0.10	0.03	0.017
2ND QUARTILE	:	1.8	3.05	0.70	0.36	0.13	0.086
3RD QUARTILE		5.8	6.99	1.48	1.44	0.35	0.202
VOL. WGT. MEAN		50 E)	5.96	1.18		0.28	0.153
MISSING VALUES	:	9.0	42	42	53	42	53
		POTASSIUM	SODIUM	AMMONIUM	ACIDITY GRAN	FREEH+ LAB	
		MG/M**2	MG/N**2	MG/M**2	UG/M**2	UG/M**2	
OF SAMPLES	:	136	136	136	136	136.00	
MUMIKAN	:	3.114	2.422	44.980	1773.20	470.32	
MINIMUM	:	0.000	0.000	0.000	1.67	0.01	
ARITH. MEAN	:	0.187	0.159	2.082	168.60	55.64	
ARITH. STD. DEV	:	0.393	0.343	5.763	245.10	81.51	
GEOM. MEAN	:	0.080	0.079	0.511	79.15	15.78	
LST QUARTILE	:	0.030	0.030	0.089	31.20	5.64	
ND QUARTILE	*	0.090	0.070	0.618	106.96	20.52	
RD QUARTILE	:	0.200	0.159	1.561	217.65	73.33	
VOL. WGT. MEAN	:	0.134	0.114	1.691	132.82	179.95	
MISSING VALUES		56	55	43	46	45.00	

STATION NAME : LONGWOODS/DAILY/AEROCHEM

#02

PERIOD OF REPORT : JAN 1, 87 TO DEC 29,87

		PRECIP.	FREE H+ FIELD	FREE H+ LAB	TOTAL H+ Gran	SULPHATE	NITRATE AS N	CALCIUM
		ММ	MG/M**2	MG/M××2	MG/M××2	MG/M××2	MG/M××2	MG/M××2
# OF SAMPLES	:	115	58	106	105	104	103	100
MAXIMUM	:	73.1	10.5662	3.1183	5.2193	197.37	32.895	18.048
MINIMUM	:	0.4	0.0005	0.0000	0.0010	0.50	0.000	0.144
RANGE	1	72.7	10.5657	3.1183	5.2184	196.87	32.895	17.904
ARITH. MEAN	:	6.2	0.9643	0.2710	0.4281	18.70	3.215	2.860
ARITH. STD. DEV	:	8.8	1.6737	0.4693	0.6886	25.93	3.937	3.079
GEOM. MEAN	:	3.4	0.2652	0.0315	0.1695	9.47	1.906	1.705
1ST QUARTILE	:	1.4	0.0758	0.0035	0.0580	4.03	1.071	0.928
2ND QUARTILE	:	3.1	0.3917	0.0843	0.1810	10.78	2.020	1.701
3RD QUARTILE	:	7.7	1.1965	0.3229	0.5062	24.35	4.066	3.464
VOL. WGT. MEAN	:	*****	0.6133	0.2742	0.4297	19.19	3.271	2.913

		CHLORIDE	MAGNESIM	POTASSIM	SODIUM	AMMONIUM AS N
		MG/M**2	MG/M××2	MG/M**2	MG/M××2	MG/M**2
# OF SAMPLES	:	104	100	99	102	97
MAXIMUM	:	17.654	2.538	12.768	8.439	42.033
MINIMUM	:	0.108	0.024	0.020	0.031	0.000
RANGE	:	17.546	2.514	12.748	8.408	42.033
ARITH. MEAN	:	1.609	0.494	0.735	0.534	2.789
ARITH. STD. DEV	:	2.052	0.547	1.623	0.903	4.743
GEOM. MEAN	:	1.019	0.290	0.323	0.320	1.434
1ST QUARTILE	:	0.542	0.143	0.148	0.151	0.740
2ND QUARTILE	:	1.125	0.296	0.275	0.323	1.532
3RD QUARTILE	:	2.037	0.580	0.644	0.617	3.019
VOL. WGT. MEAN	:	1.651	0.503	0.751	0.539	2.707

\*\*\*\* ! INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

CALCIUM MG/M××2 107 12.540 0.000 12.540 1.955 2.247 1.110 0.457 1.225 2.184 1.619

### ONTARIO MINISTRY OF THE ENVIRONMENT SUMMARY STATISTICS OF CALCULATED DEPOSITIONS APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : MELBOURNE/DAILY/AEROCHEM

#01

PERIOD OF REPORT : JAN 1, 87 TO

		PRECIP.	FREE H+	FREE H+	TOTAL H+	SULPHATE	NITRATE
		1999-01	FIELD	LAB	GRAN		AS N
		ММ	MG/M**2	MG/M**2	MG/M**2	MG/M××2	MG/M**2
# OF SAMPLES		134	51	113	113	114	113
MAXIMUM	1	38.0	8.9081	2.9605	3.8440	155.00	14.880
MINIMUM	:	0.1	0.0005	0.0001	0.0118	0.14	0.050
RANGE		37.9	8.9076	2.9604	3.8322	154.86	14.830
ARITH. MEAN	:	5.1	1.1267	0.3676	0.4871	19.30	3.415
ARITH. STD. DEV		6.8	1.5470	0.5210	0.6421	25.98	
GEOM. MEAN	2	2.3	0.4200	0.0911	0.2168	9.06	3.472
1ST QUARTILE		0.8	0.1781	0.0253	0.0732	4.40	1.861
2ND QUARTILE	:	2.4	0.5412	0.1827	0.2409	10.35	0.789
3RD QUARTILE	:	6.3	1.3569	0.4707	0.6267	20.81	1.960
VOL. WGT. MEAN	:	*****	0.6079	0.3187	0.4277	16.86	4.881 2.959
					W B		
		CHLORIDE	MAGNESIM	POTASSIM	SODIUM	AMMONIUM	
		MG/M**2	MG/M**2	MG/M**2	MG/M**2	AS N MG/M**2	
# OF SAMPLES	:	114	107	105	107	112	
MAXIMUM		6.016	2.185	2.730	2.120	18.600	
MINIMUM	:	0.024	0.000	0.000	0.000		
RANGE	:	5.992	2.185	2.730	2.120	0.014	
ARITH. MEAN	:	1.119	0.335	0.252	0.284	18.586	
ARITH. STD. DEV	:	1.070	0.399	0.372	0.291	2.514	
GEOM. MEAN	:	0.688	0.201	0.168	0.191	3.120	
1ST QUARTILE	:	0.325	0.085	0.069	0.098	1.303	
2ND QUARTILE	:	0.845	0.191	0.160	0.199	0.579	
3RD QUARTILE	:	1.556	0.379	0.282	0.371	1.455	
VOL. WGT. MEAN	:	0.978	0.277	0.206		3.231	
The second secon			U.L//	0.206	0.235	2.162	

\*\*\*\* : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

STATION NAME : NITHGROVE/DAILY/AEROCHEM

#07

PERIOD OF REPORT : JAN 6, 87 TO DEC 26,87

		PRECIP.	FREE H+ FIELD	FREE H+ LAB	TOTAL H+ GRAN	SULPHATE	NITRATE AS N	CALCIUM
		MM	MG/M**2	MG/M××2	MG/M××2	MG/M**2	MG/M×+2	MG/M**2
# OF SAMPLES	:	133	80	120	119	119	119	117
MAXIMUM	:	27.2	4.0826	3.3958	4.4772	151.36	21.156	12.240
MINIMUM	:	0.0	0.0000	0.0000	0.0023	0.02	0.000	0.000
RANGE	1	27.2	4.0825	3.3957	4.4749	151.34	21.156	12.240
ARITH. MEAN	:	5.2	0.4760	0.3119	0.4469	15.41	3.069	1.399
ARITH. STD. DEV	:	6.1	0.6534	0.5525	0.6736	23.75	3.729	2.007
GEOM. MEAN	:	2.2	0.2022	0.0637	0.1771	5.62	1.402	0.557
1ST QUARTILE	:	1.0	0.1097	0.0313	0.0583	1.91	0.430	0.168
2ND QUARTILE	:	2.9	0.2419	0.1181	0.2128	7.22	1.978	0.632
3RD QUARTILE	:	6.7	0.5902	0.3155	0.5302	18.71	4.321	1.778
VOL. WGT. MEAN	:	*****	0.3189	0.2847	0.4050	13.96	2.781	1.249

		CHLORIDE	MAGNESIM	POTASSIM	SODIUM	MUINOMMA
		MG/M**2	MG/M××2	MG/M××2	MG/H×+2	AS N MG/M**2
# OF SAMPLES	:	118	117	117	117	117
MAXIMUM	:	5.166	2.465	2.268	1.472	16.168
MINIMUM	:	0.000	0.000	0.000	0.000	0.000
RANGE	:	5.166	2.465	2.268	1.472	16.168
ARITH. MEAN	:	0.779	0.212	0.235	0.223	2.105
ARITH. STD. DEV	:	1.030	0.347	0.286	0.265	2.734
GEOM. MEAN	:	0.445	0.108	0.135	0.137	0.854
1ST QUARTILE	:	0.112	0.021	0.060	0.078	0.289
2ND QUARTILE	:	0.408	0.089	0.140	0.127	1.089
3RD QUARTILE	:	0.961	0.249	0.330	0.274	2.993
VOL. WGT. MEAN	:	0.708	0.189	0.210	0.199	1.881

\*\*\*\* I INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION

STATION NAME : NORTH EASTHOPE/DAILY/AEROCHEM #03

PERIOD OF REPORT : JAN 1, 87 TO DEC 29,87

	PRECIP.	FREE H+ FIELD	FREE H+ LAB	TOTAL H+ Gran	SULPHATE	NITRATE AS N	CALCIUM
(4)	ММ	MG/M**2	MG/M**2	MG/M××2	MG/M**2	MG/M**2	MG/M××2
# OF SAMPLES :	148	73	129	128	130	130	107
MAXIMUM :	38.5	6.1018	4.2323	4.9266	204.30		123
MINIMUM :	0.1	0.0006	0.0000			19.200	25.984
RANGE :	38.4			0.0083	0.14	0.015	0.066
	1.740 TeV. D.,	6.1012	4.2323	4.9183	204.16	19.185	25.918
ARITH. MEAN :	5.9	0.7252	0.3150	0.4672	20.25	3.317	2.949
ARITH. STD. DEV :	7.5	1.0061	0.5493	0.6922	31.74	3.632	4.069
GEOM. MEAN :	2.7	0.2436	0.0447	0.1888	8.60		
1ST QUARTILE :	1.2	0.1495	0.0046		2000-200	1.773	1.470
2ND QUARTILE :	3.0		나라 하나 하는 것이 없는데 하는데 하는데 하는데 하는데 하는데 하는데 하는데 하는데 하는데 하	0.0679	3.16	0.986	0.614
NGB (197) - SANGARAMAN AND SOF		0.4610	0.1437	0.2064	8.81	1.963	1.545
3RD QUARTILE :	7.3	0.7520	0.3824	0.5737	22.24	4.852	3.195
VOL. WGT. MEAN :	*****	0.4391	0.2904	0.4278	18.75	3.071	2.616

		CHLORIDE	MAGNESIM	POTASSIM	SODIUM	AMMONIUM
		MG/M**2	MG/M**2	MG/M××2	MG/M××2	AS N MG/M**2
# OF SAMPLES	:	130	123	124	124	127
MAXIMUM	:	8.853	4.408	1.072	1.249	20.648
MINIMUM	:	0.015	0.000	0.000	0.025	0.008
RANGE	:	8.838	4.408	1.072	1.224	20.640
ARITH. MEAN	:	1.039	0.532	0.214	0.311	2.849
ARITH. STD. DEV	:	1.188	0.757	0.212	0.271	3.632
GEOM. MEAN	:	0.614	0.258	0.144	0.210	1.433
1ST QUARTILE	:	0.316	0.099	0.060	0.115	0.744
2ND QUARTILE	:	0.715	0.234	0.146	0.207	1.493
3RD QUARTILE	:	1.340	0.600	0.320	0.458	3.425
VOL. WGT. MEAN	:	0.962	0.471	0.191	0.278	2.585

\*\*\*\* : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION

STATION NAME : QUETICO CENTRE/DAILY/AEROCHEM #14

PERIOD OF REPORT : JAN 1, 87 TO DEC 31,87

		PRECIP.	FREE H+ FIELD	FREE H+ LAB	TOTAL H+ GRAN	SULPHATE	NITRATE AS N	CALCIUM
4		ММ	MG/M××2	MG/M**2	MG/M××2	MG/M××2	MG/M××2	MG/M**2
# OF SAMPLES	1	79	0 .	65	66	64	66	61
MAXIMUM	:	47.0	*****	0.5436	1.1750	38.57	6.320	13.572
MINIMUM	:	0.1	******	0.0002	0.0140	0.00	0.054	0.000
RANGE .	1	46.9	*****	0.5434	1.1610	38.57	6.266	13.572
ARITH. MEAN	:	6.8	******	0.0875	0.2269	7.99	1.789	1.740
ARITH. STD. DEV	:	7.9	******	0.1147	0.2248	8.03	1.590	2.432
GEOM. MEAN	:	3.4	******	0.0323	0.1554	4.96	1.109	0.940
1ST QUARTILE	:	2.6	******	0.0179	0.0970	2.55	0.550	0.347
2ND QUARTILE	:	4.3	******	0.0499	0.1388	5.24	1.278	0.957
3RD QUARTILE	:	7.3	******	0.0972	0.2453	11.72	2.475	1.977
VOL. WGT. MEAN	:	*****	******	0.0803	0.2099	7.29	1.655	1.525

		CHLORIDE	MAGNESIM	POTASSIM	SODIUM	AMMONIUM
		MG/M××2	MG/M××2	MG/M××2	MG/M××2	AS N MG/M**2
# OF SAMPLES	:	66	61	61	61	65
MAXIMUM	:	2.350	2.703	2.929	0.900	8.930
MINIMUM	:	0.000	0.000	0.000	0.000	0.000
RANGE	:	2.350	2.703	2.929	0.900	8.930
ARITH. MEAN	:	0.531	0.288	0.349	0.249	1.780
ARITH. STD. DEV	1	0.475	0.416	0.458	0.204	1.925
GEOM. MEAN	:	0.422	0.194	0.211	0.215	0.830
1ST QUARTILE	:	0.194	0.058	0.087	0.103	0.300
2ND QUARTILE	1	0.436	0.172	0.260	0.172	1.284
3RD QUARTILE	:	0.735	0.338	0.420	0.328	2.299
VOL. WGT. MEAN	:	0.491	0.252	0.306	0.218	1.637

\*\*\*\* : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION

CALCIUM MG/M\*\*2 61 13.464 0.175 13.289 2.378 2.208 1.630 0.985 1.948 3.105 2.127

### ONTARIO MINISTRY OF THE ENVIRONMENT SUMMARY STATISTICS OF CALCULATED DEPOSITIONS APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : RAILTON/DAILY/AEROCHEM

#10

PERIOD OF REPORT : JAN 2, 87 TO DEC 25,87

		PRECIP.	FREE H+ FIELD	FREE H+ LAB	TOTAL H+ Gran	SULPHATE	NITRATE AS N	
		MM	MG/M××2	MG/M**2	MG/M××2	MG/M××2	MG/M××2	
# OF SAMPLES	:	71	42	64	64	63	64	
MAXIMUM	:	68.2	2.4342	2.5340	6.3360	114.07	23.968	
MINIMUM	1	0.2	0.0140	0.0002	0.0132	0.19	0.154	
RANGE		68.0	2.4202	2.5338	6.3228	113.88	23.814	
ARITH. MEAN	:	10.6	0.7586	0.6075	0.9597	31.56	5.904	
ARITH. STD. DEV	:	11.2	0.6359	0.5849	1.0014	26.70	4.510	
GEOM. MEAN	:	6.2	0.4528	0.2976	0.5718	20.89	4.280	
1ST QUARTILE	:	4.0	0.1699	0.1517	0.2602	10.64	2.587	
2ND QUARTILE	:	6.9	0.5480	0.3774	0.6693	20.89	4.613	
3RD QUARTILE	:	13.4	1.2154	0.8872	1.4414	44.38	8.706	
VOL. WGT. MEAN	1	*****	0.6042	0.5680	0.8974	29.10	5.521	
		CHLORIDE	MAGNESIM	POTASSIM	SODIUM	AMMONIUM		
						AS N		
		MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M××2		
# OF SAMPLES	:	64	61	60	61	64		
MAXIMUM		106.834	1.386	7.441	6.520	25.680		
MINIMUM	:	0.000	0.000	0.000	0.000	0.044		
RANGE	:	106.834	1.386	7.441	6.520	25.636		
ARITH. MEAN	:	3.608	0.329	0.534	0.580	4.062		
ARITH. STD. DEV	:	13.274	0.305	0.991	1.044	3.871		
GEOM. MEAN	:	1.319	0.258	0.380	0.313	2.696		
1ST QUARTILE	:	0.622	0.122	0.150	0.099	1.812		
2ND QUARTILE	:	1.320	0.223	0.296	0.220	2.824		
3RD QUARTILE	:	2.529	0.409	0.551	0.526	5.788		
VOL. WGT. MEAN	:	3.374	0.294	0.482	0.519	3.798		

\*\*\*\* : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION

## ONTARIO MINISTRY OF THE ENVIRONMENT APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY SUMMARY STATISTICS OF DEPOSITION

----- STATION=RAVEN LAKE AEROCHEM SITE NO.1 ------SULFATE NITRATE CALCIUM CHLORIDE MAGNESIUM EQUIVALENT PREC. DEPTH MG/M\*\*2 MG/M\*\*2 MG/M\*\*2 MG/M\*\*2 MG/M\*\*2 182.0 182 182 182 182 # OF SAMPLES 182 35.2 144.20 28.43 4.94 4.738 MAXIMUM 20.60 0.00 0.000 MINIMUM 0.0 0.08 0.01 0.00 0.274 ARITH. MEAN 4.7 14.44 3.05 1.97 0.72 5.8 22.41 3.61 4.07 0.92 0.678 ARITH. STD. DEV GEOM. MEAN 1.8 5.59 1.41 0.73 0.41 0.088 0.020 1ST QUARTILE 1.92 0.54 0.24 0.13 0.6 6.40 0.078 2ND QUARTILE 2.8 2.16 0.69 0.42 0.203 3RD QUARTILE 6.6 16.74 3.79 1.74 0.90 VOL. WGT. MEAN 10.99 0.55 0.206 2.32 1.48 47 49 MISSING VALUES 23.0 47 50 POTASSIUM AMMONIUM ACIDITY GRAN FREEH+ SODIUM LAB UG/M\*\*2 MG/M\*\*2 MG/M\*\*2 MG/M\*\*2 UG/M\*\*2 # OF SAMPLES 182 182 182 182 182.00 MAXIMUM 2.575 22.248 3203.20 2692 1.342 0.000 0.000 0.000 2.17 0.04 MINIMUM ARITH. MEAN 0.167 0.231 1.923 396.56 271.87 0.299 0.235 477.03 372.48 ARITH. STD. DEV 3.161 0.086 0.150 0.641 184.18 87.30 GEOM. MEAN 0.033 0.079 0.206 69.72 34.91 1ST QUARTILE

0.868

2.234

1.458

263.84

470.95

305.00

46

141.24

345.22

387.79

46.00

2ND QUARTILE

3RD QUARTILE

VOL. WGT. MEAN

MISSING VALUES

0.091

0.174

0.127

48

0.155

0.296

0.175

48

CALCIUM
MG/M\*\*2

98
26.668
0.000
26.668
1.387
2.980
0.684
0.224
0.637
1.210
0.927

### ONTARIO MINISTRY OF THE ENVIRONMENT SUMMARY STATISTICS OF CALCULATED DEPOSITIONS APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

FREE H+

TOTAL H+

0.357

0.336

SULPHATE

1.907

1.316

NITRATE

### STATION NAME : SUTTON/DAILY/AEROCHEM./7011

PERIOD OF REPORT : JAN 2, 87 TO DEC 30,87

PRECIP.

FREE H+

0.169

0.109

					TOTAL III	SOLFIIAIL	MILLIAME	
			FIELD	LAB	GRAN		AS N	
		MM	MG/M**2	MG/M××2	MG/M**2	MG/M**2	MG/M××2	
# OF SAMPLES	:	200	0	115	115	110	111	
MAXIMUM	:	42.2	*****	2.0198	3.1186	130.82	19.720	
MINIMUM	:	0.1	******	0.0000	0.0095	0.21	0.000	
RANGE	:	42.1	*****	2.0198	3.1091	130.61	19.720	
ARITH. MEAN	:	4.7	******	0.2852	0.4327	14.21	3.062	
ARITH. STD. DEV	:	7.4	******	0.4271	0.5854	22.58	4.144	
GEOM. MEAN	:	1.2	******	0.0726	0.2043	5.94		
1ST QUARTILE	:	0.2	******	0.0302	0.0733	2.24	1.472	
2ND QUARTILE	:	1.6	******	0.1228	0.2122	6.61	0.591	
3RD QUARTILE	:	6.1	******	0.2884	0.4694	14.42	1.553	
VOL. WGT. MEAN	:	*****	******	0.2037	0.3090	9.84	3.156 2.132	
		CHLORIDE	MAGNESIM	POTASSIM	SODIUM	AMMONIUM		
				101700111	3001011	AS N		
		MG/M××2	MG/M**2	MG/M**2	MG/M**2	MG/M××2		
# OF SAMPLES	:	111	98	98	98	110		
MAXIMUM	:	8.640	4.248	2.060	11.152	21.830		
MINIMUM	:	0.000	0.000	0.000	0.000	0.000		
RANGE	:	8.640	4.248	2.060	11.152	21.830		
ARITH. MEAN	:	0.808	0.164	0.191	0.502	1.837		
ARITH. STD. DEV	:	1.215	0.446	0.335	1.275	3.333		
GEOM. MEAN	:	0.496	0.117	0.133	0.189	0.630		
1ST QUARTILE	:	0.141	0.019	0.026	0.067	0.185		
2ND QUARTILE	:	0.400	0.062	0.060	0.154	0.586		
TOD QUARTITE		1 005	0.110			0.300		

\*\*\*\* : INSUFFICIENT DATA

:

3RD QUARTILE

VOL. WGT. MEAN

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

1.025

0.567

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

0.206

0.128

STATION NAME : WELLESLEY/DAILY/AEROCHEM #0

#04

PERIOD OF REPORT : JAN 1, 87 TO DEC 25,87

		PRECIP.	FREE H+ FIELD	FREE H+ LAB	TOTAL H+ Gran	SULPHATE	NITRATE AS N	CALCIUM
		MM	MG/M××2	MG/M**2	MG/M××2	MG/M**2	MG/M**2	MG/M**2
# OF SAMPLES		137	69	119	118	118	118	110
MAXIMUM	1	44.8	6.0130	4.4477	5.4672	277.38	24.192	27.776
MINIMUM	1	0.1	0.0010	0.0000	0.0054	0.18	0.013	0.000
RANGE	2	44.7	6.0121	4.4477	5.4618	277.20	24.179	27.776
ARITH. MEAN		6.0	0.6868	0.3160	0.4677	20.89	3.312	2.486
ARITH. STD. DEV	:	7.7	1.0219	0.6024	0.7608	37.50	4.055	4.303
GEOM. MEAN	:	2.9	0.2593	0.0475	0.1839	7.94	1.595	1.114
1ST QUARTILE	:	1.4	0.1094	0.0104	0.0572	2.98	0.696	0.306
2ND QUARTILE	:	3.0	0.3992	0.1032	0.2164	8.91	1.832	1.070
3RD QUARTILE	:	6.9	0.8622	0.3338	0.5621	21.66	4.236	3.116
VOL. WGT. MEAN		*****	0.3931	0.2890	0.4267	18.95	3.006	2.202

		CHLORIDE	MAGNESIM	POTASSIM	SODIUM	AMMONIUM AS N
		MG/M××2	MG/M**2	MG/M**2	MG/M**2	MG/M**2
# OF SAMPLES	:	118	110	110	109	114
MAXIMUM	:	30.030	3.752	0.910	1.568	30.240
MINIMUM	:	. 0.000	0.000	0.000	0.000	0.000
RANGE	:	30.030	3.752	0.910	1.568	30.240
ARITH. MEAN	:	1.194	0.418	0.172	0.267	3.012
ARITH. STD. DEV	:	2.913	0.676	0.203	0.255	4.392
GEOM. MEAN	:	0.556	0.198	0.120	0.182	1.520
1ST QUARTILE	:	0.273	0.061	0.030	0.099	0.731
2ND QUARTILE	:	0.579	0.156	0.100	0.209	1.731
3RD QUARTILE	:	1.257	0.470	0.223	0.322	3.009
VOL. WGT. MEAN	:	1.084	0.370	0.153	0.235	2.730

\*\*\*\* : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION

STATION NAME : WILMER/DAILY/AEROCHEM

#9A

PERIOD OF REPORT : JAN 2, 87 TO DEC 28,87

		PRECIP.	FREE H+ FIELD	FREE H+ LAB	TOTAL H+ Gran	SULPHATE	NITRATE AS N	CALCIUM
		ММ	MG/M××2	MG/M××2	MG/M×+2	MG/M**2	MG/M**2	MG/M**2
# OF SAMPLES		150	62	115	114	110	110	112
MAXIMUM	:	59.4	5.0731	4.6267	4.4280	165.60	21.600	15.048
MINIMUM	:	0.2	0.0002	0.0001	0.0071	0.05	0.056	0.000
RANGE	:	59.2	5.0728	4.6266	4.4209	165.55	21.544	15.048
ARITH. MEAN	:	6.5	0.8385	0.4521	0.6461	23.29	4.336	1.806
ARITH. STD. DEV	:	8.8	0.8694	0.6219	0.7280	27.31	4.221	2.348
GEOM. MEAN	:	2.4	0.3901	0.1330	0.2956	10.94	2.446	1.063
1ST QUARTILE	1	0.5	0.1597	0.0398	0.1320	4.30	0.976	0.434
2ND QUARTILE	:	3.2	0.6277	0.2433	0.4054	13.97	2.812	1.190
3RD QUARTILE	:	9.5	1.1655	0.6762	0.9253	31.23	6.144	2.250
VOL. WGT. MEAN	:	*****	0.5960	0.3645	0.5168	19.42	3.614	1.421

		CHLORIDE	MAGNESIM	POTASSIM	SODIUM	AMMONIUM
		MG/M**2	MG/M××2	MG/M××2	MG/M**2	AS N MG/M**2
# OF SAMPLES	ï	109	112	112	112	115
MAXIMUM	:	10.692	1.692	2.700	6.480	18.860
MINIMUM	:	0.000	0.000	0.000	0.000	0.000
RANGE	:	10.692	1.692	2.700	6.480	18.860
ARITH. MEAN	:	1.247	0.236	0.262	0.354	2.746
ARITH. STD. DEV	:	1.696	0.306	0.338	0.721	3.383
GEOM. MEAN	:	0.653	0.151	0.158	0.208	1.186
1ST QUARTILE	:	0.284	0.045	0.082	0.100	0.432
2ND QUARTILE	1	0.755	0.136	0.168	0.209	1.638
3RD QUARTILE	:	1.349	0.279	0.319	0.337	3.701
VOL. WGT. MEAN	:	1.038	0.186	0.206	0.279	2.213

\*\*\*\* I INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION

### PART VI

SUMMARY STATISTICS OF WET DEPOSITION BY REGION

### STATION NAME : CENTRAL REGION/DAILY PRECIPITATION

PERIOD OF REPORT : JAN 6, 87 TO DEC 25,87

		PRECIP.	FREE H+ FIELD	FREE H+ LAB	TOTAL H+ GRAN	SULPHATE	NITRATE AS N	CALCIUM
		HM	MG/M**2	MG/M××2	MG/M××2	MG/M××2	MG/M××2	MG/M++2
# OF SAMPLES	:	579	337	521	520	518	518	503
MAXIMUM	:	300.1	4.0826	3.3958	19.9266	645.22	33.011	78.026
MINIMUM	:	0.0	0.0000	0.0000	0.0012	0.02	0.000	0.000
RANGE	2	300.1	4.0825	3.3957	19.9254	645.20	33.011	78.026
ARITH. MEAN	1	5.5	0.4550	0.2895	0.4780	16.28	3.193	1.958
ARITH. STD. DEV		13.6	0.5366	0.4461	1.1060	35.79	3.946	4.673
GEOM. MEAN	:	2.2	0.2393	0.0835	0.1878	5.83	1.443	0.742
1ST QUARTILE	:	0.9	0.1323	0.0343	0.0675	1.92	0.507	0.260
2ND QUARTILE	:	3.0	0.2863	0.1337	0.2455	7.43	2.160	0.775
3RD QUARTILE	:	6.6	0.5872	0.3421	0.5116	17.41	3.998	1.905
VOL. WGT. MEAN	:	*****	0.3238	0.2913	0.4350	14.74	2.891	1.729

		CHLORIDE	MAGNESIM	POTASSIM	SODIUM	AMMONIUM
		MG/M**2	MG/M××2	MG/M××2	MG/M××2	AS N MG/M**2
# OF SAMPLES	:	517	504	505	504	512
MAXIMUM	:	231.077	9.003	22.507	157.553	33.011
MINIMUM	:	0.000	0.000	0.000	0.000	0.000
RANGE	:	231.077	9.003	22.507	157.553	33.011
ARITH. MEAN	:	1.237	0.268	0.232	0.589	2.069
ARITH. STD. DEV	:	10.191	0.661	1.028	7.044	3.339
GEOM. MEAN	:	0.429	0.112	0.114	0.146	0.721
1ST QUARTILE	:	0.126	0.024	0.036	0.065	0.210
2ND QUARTILE	:	0.424	0.090	0.107	0.139	0.982
3RD QUARTILE	:	0.984	0.220	0.213	0.295	2.541
VOL. WGT. MEAN	:	1.123	0.237	0.206	0.520	1.856

\*\*\*\* : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION

STATION NAME : NORTHWESTERN REGION/DAILY PRECIPITATION

PERIOD OF REPORT : DEC 31, 86 TO DEC 19,87

		PRECIP.	FREE H+ FIELD	. FREE H+ LAB	TOTAL H+ Gran	SULPHATE	NITRATE AS N	CALCIUM
		MM	MG/M**2	MG/M**2	MG/M××2	MG/M**2	MG/M××2	MG/M××2
# OF SAMPLES	1	282	0	218	218	221	223	203
MUMIXAM	:	100.8	*****	0.6074	3.5144	619.30	90.630	28.224
MINIMUM	:	0.1	*****	0.0000	0.0017	0.00	0.015	0.000
RANGE	1	100.7	******	0.6074	3.5128	619.30	90.615	28.224
ARITH. MEAN		6.8	******	0.0846	0.2493	11.41	2.150	1.736
ARITH. STD. DEV	:	12.2	******	0.1199	0.3825	43.49	6.512	3.454
GEOM. MEAN	:	2.3	******	0.0249	0.1245	3.96	0.839	0.725
1ST QUARTILE	:	0.8	*****	0.0077	0.0684	1.75	0.387	0.202
2ND QUARTILE	:	3.4	******	0.0379	0.1328	4.37	1.036	0.720
3RD QUARTILE	:	7.5	******	0.0999	0.2521	10.69	2.310	1.920
VOL. WGT. MEAN	:	*****	*****	0.0721	0.2122	9.85	1.864	1.394
		CHLORIDE	MAGNESIM	POTASSIM	SODIUM	AMMONIUM		
						AS N		
		MG/M××2	MG/M××2	MG/M**2	MG/M**2	MG/M**2		
# OF SAMPLES	:	223	204	202	203	220		
MAXIMUM	:	72.504	7.552	82.574	30.210	377.625		
MINIMUM	:	0.000	0.000	0.000	0.000	0.000		
RANGE	:	72.504	7.552	82.574	30.210	377.625		
ARITH. MEAN	:	0.820	0.314	0.718	0.485	3.751		
ARITH. STD. DEV	:	4.887	0.785	5.831	2.435	25.685		
OFOH MEAN	1			7.77		22.003		

0.717

0.182

0.911

2.315

3.221

0.175

0.064

0.151

0.320

0.389

\*\*\*\* : INSUFFICIENT DATA

:

GEOM. MEAN

1ST QUARTILE

2ND QUARTILE

3RD QUARTILE

VOL. WGT. MEAN :

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

0.335

0.100

0.263

0.600

0.711

0.150

0.030

0.129

0.321

0.253

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION

0.152

0.052

0.152

0.338

0.573

### STATION NAME : SOUTHEASTERN REGION/DAILY PRECIPITATION

PERIOD OF REPORT : JAN 2, 87 TO DEC 28,87

		PRECIP.	FREE H+ FIELD	FREE H+ LAB	TOTAL H+ Gran	SULPHATE	NITRATE AS N	CALCIUM
		MM	MG/M××2	MG/M**2	MG/M**2	MG/M**2	MG/M××2	MG/M××2
# OF SAMPLES	:	334	170	275	274	268	268	264
MAXIMUM	:	68.2	6.1441	4.6267	6.3360	165.60	23.968	24.840
MINIMUM	:	0.0	0.0002	0.0001	0.0041	0.03	0.015	0.000
RANGE	:	68.2	6.1438	4.6266	6.3319	165.57	23.953	24.840
ARITH. MEAN	2	7.8	0.8790	0.5123	0.7525	25.27	4.647	2.110
ARITH. STD. DEV	:	9.9	0.8931	0.6241	0.8357	27.77	4.308	2.816
GEOM. MEAN	:	3.3	0.4849	0.1859	0.3674	12.23	2.589	1.209
1ST QUARTILE	:	1.1	0.2512	0.0931	0.1682	6.48	1.380	0.530
2ND QUARTILE	1	4.8	0.6231	0.2803	0.4588	15.76	3.396	1.355
3RD QUARTILE	1	10.6	1.2440	0.7545	1.1452	35.45	6.630	2.596
VOL. WGT. MEAN	:	*****	0.6533	0.4565	0.6683	22.61	4.163	1.810

		CHLORIDE	MAGNESIM	POTASSIM	SODIUM	AMMONIUM
		MG/M**2	MG/M××2	MG/M××2	MG/M×+2	AS N MG/M**2
# OF SAMPLES	:	263	264	263	264	274
MAXIMUM	:	106.834	4.830	7.441	6.520	25.680
MINIMUM	:	0.000	0.000	0.000	0.000	0.000
RANGE	:	106.834	4.830	7.441	6.520	25.680
ARITH. MEAN	:	1.957	0.267	0.309	0.389	2.696
ARITH. STD. DEV	:	6.860	0.411	0.588	0.747	3.355
GEOM. MEAN	:	0.807	0.165	0.195	0.215	1.137
1ST QUARTILE	:	0.358	0.058	0.068	0.084	0.404
2ND QUARTILE	:	0.862	0.150	0.164	0.198	1.614
3RD QUARTILE	:	1.903	0.339	0.339	0.382	3.651
VOL. WGT. MEAN	:	1.752	0.229	0.266	0.334	2.394

\*\*\*\* : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION

STATION NAME : SOUTHWESTERN REGION/DAILY PRECIPITATION

PERIOD OF REPORT : JAN 1, 87 TO DEC 25,87

		PRECIP.	FREE H+ FIELD	FREE H+ LAB	TOTAL H+ GRAN	SULPHATE	NITRATE AS N	CALCIUM
		ММ	MG/M××2	MG/M**2	MG/M**2	MG/M**2	MG/M××2	MG/M**2
# OF SAMPLES	:	534	251	467	464	466	464	440
MAXIMUM	:	73.1	10.5662	4.4477	5.4672	277.38	32.895	27.776
MINIMUM	:	0.1	0.0005	0.0000	0.0010	0.14	0.000	0.000
RANGE	:	73.0	10.5657	4.4477	5.4662	277.24	32.895	27.776
ARITH. MEAN	2	5.8	0.8515	0.3180	0.4633	19.83	3.317	2.572
ARITH. STD. DEV	:	7.7	1.3128	0.5392	0.6960	30.77	3.764	3.565
GEOM. MEAN	:	2.8	0.2823	0.0498	0.1893	8.72	1.775	1.325
1ST QUARTILE	:	1.2	0.1378	0.0081	0.0663	3.67	0.875	0.524
2ND QUARTILE	:	3.0	0.4357	0.1165	0.2032	9.72	1.902	
3RD QUARTILE		7.2	0.9888	0.3877	0.5583			1.320
		4	7.7.7.7.7			22.80	4.630	3.084
VOL. WGT. MEAN	1	****	0.5292	0.2944	0.4283	18.43	3.071	2.314

		CHLORIDE	MAGNESIM	POTASSIM	SODIUM	AMMONIUM
		MG/M**2	MG/M**2	MG/M**2	MG/M××2	AS N MG/M**2
# OF SAMPLES	:	466	440	438	442	450
MAXIMUM	:	30.030	4.408	12.768	8.439	42.033
MINIMUM	:	0.000	0.000	0.000	0.000	0.000
RANGE	:	30.030	4.408	12.768	8.439	42.033
ARITH. MEAN	:	1.225	0.447	0.330	0.345	2.794
ARITH. STD. DEV	1	1.945	0.620	0.834	0.505	3.976
GEOM. MEAN	:	0.690	0.234	0.171	0.219	1.421
1ST QUARTILE	:	0.345	0.095	0.062	0.115	0.712
2ND QUARTILE	:	0.756	0.220	0.162	0.227	1.533
3RD QUARTILE	:	1.521	0.504	0.333	0.416	3.241
VOL. WGT. MEAN	:	1.139	0.402	0.297	0.310	2.541

\*\*\*\* : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION

### PART VII

SUMMARY STATISTICS OF AIR CONCENTRATION BY STATION, REGION

STATION NAME : CHARLESTON LAKE/DAILY/AIR

PERIOD OF REPORT	:	DEC 31,86 TO	DEC 31,87				PAGE: 1
(2)		SULPHUR DIOXIDE	SULPHATE	NITRIC AS N	AMMONIUM AS N	NITRATE AS N	TOTL NO3 AS N
		UG/M**3	UG/M**3	UG/M**3	UG/M××3	UG/M**3	UG/M××3
# OF SAMPLES		343.0	342.00	343.00	343.000	343.00	343.00
MAXIMUM	:	37.3	32.09	2.14	7.015	2.69	3.55
MINIMUM	:	0.0	0.02	0.00	0.000	0.00	0.00
RANGE		37.3	32.07	2.14	7.015	2.69	3.55
ARITH. MEAN		3.3	3.87	0.37	1.100	0.22	0.59
ARITH. STD. DEV		4.1	4.76	0.35	1.190	0.35	0.55
GEOM. MEAN	:	1.9	2.24	0.24	0.651	0.14	0.39
1ST QUARTILE	:	0.8	1.09	0.11	0.295	0.05	0.18
2ND QUARTILE		2.0	2.22	0.25	0.641	0.11	0.41
3RD QUARTILE	:	4.3	4.32	0.51	1.425	0.24	0.87

STATION NAME : DORSET/DAILY/AIR

PERIOD OF REPORT	1	DEC 31,86	то	DEC 31,87				PAGE : 1
		SULPHUR DIOXIDE UG/M##3		SULPHATE UG/M##3	NITRIC AS N UG/M**3	AMMONIUM AS N UG/M##3	NITRATE AS N UG/M**3	TOTL NOS AS N UG/M##3
# OF SAMPLES	:	333.0	3	343.00	344.00	342.000	344.00	344.00
MAXIMUM	2	32.1		30.89	1.70	5.494	1.79	3.15
MINIMUM		0.0		0.03	0.00	0.000	0.00	0.00
RANGE	:	32.1		30.86	1.70	5.494	1.79	3.15
ARITH. MEAN		3.1		3.34	0.27	0.756	0.08	0.35
ARITH. STD. DEV	:	4.2		4.45	0.30	0.930	0.18	0.40
GEOM. MEAN	:	1.6		1.81	0.17	0.396	0.07	0.19
1ST QUARTILE	:	0.6		0.78	0.06	0.163	0.00	0.08
2ND QUARTILE	:	1.7		1.85	0.14	0.382	0.02	0.18
3RD QUARTILE	:	3.9		3.69	0.41	0.938	0.07	0.51

STATION NAME : FERNBERG/DAILY/AIR

PERIOD OF REPORT	:	DEC 31,86	TO DEC 31,87				PAGE : 1
		SULPHUR DIOXIDE UG/M**3	SULPHATE UG/M**3	NITRIC AS N UG/M**3	AMMONIUM AS N UG/M**3	NITRATE AS N UG/M**3	TOTL NO3 AS N UG/M**3
# OF SAMPLES	:	361.0	360.00	360.00	361.000	361.00	360.00
MAXIMUM	:	10.8	11.26	1.69	2.625	1.64	2.38
MINIMUM	:	0.0	0.00	0.00	0.000	0.00	0.00
RANGE	:	10.8	11.26	1.69	2.625	1.64	2.38
ARITH. MEAN	:	0.9	1.48	0.14	0.398	0.07	0.21
ARITH. STD. DEV	:	1.4	1.41	0.18	0.437	0.18	0.31
GEOM. MEAN	:	0.6	1.05	0.11	0.267	0.08	0.12
1ST QUARTILE	:	0.1	0.67	0.03	0.145	0.00	0.05
2ND QUARTILE		0.4	1.05	0.08	0.252	0.02	0.11
3RD QUARTILE	:	1.1	1.85	0.17	0.466	0.05	0.22

STATION NAME : HIGH FALLS/DAILY/AIR

PERIOD OF REPORT	:	DEC 31,86	то	DEC 31,87				PAGE: 1
		SULPHUR DIOXIDE UG/M**3		SULPHATE UG/M**3	NITRIC AS N UG/M**3	AMMONIUM AS N UG/M**3	NITRATE AS N	TOTL NOS
		06/11××3		06/11**3	06/M**3	UG/M##3	UG/M**3	UG/M××3
# OF SAMPLES		358.0		358.00	350.00	357.000	358.00	350.00
MAXIMUM	:	241.4		24.38	1.73	4.320	0.69	1.77
MINIMUM	:	0.0		0.00	0.00	0.004	0.00	0.00
RANGE	:	241.4		24.38	1.73	4.316	0.69	1.77
ARITH. MEAN	1	6.3		2.80	0.16	0.570	0.04	0.21
ARITH. STD. DEV	:	18.3		3.39	0.23	0.695	0.09	0.28
GEOM. MEAN	:	1.6		1.56	0.12	0.305	0.10	0.13
1ST QUARTILE	:	0.4		0.77	0.03	0.151	0.00	0.05
2ND QUARTILE	:	1.3		1.56	0.08	0.283	0.02	0.10
3RD QUARTILE	:	4.2		3.48	0.19	0.690	0.04	0.25

STATION NAME : LONGWOODS/DAILY/AIR

PERIOD OF REPORT	r:	DEC 31,86	TO DEC 31,87				PAGE : 1
		SULPHUR DIOXIDE UG/M**3	SULPHATE UG/M**3	NITRIC AS N UG/M**3	AMMONIUM AS N UG/M**3	NITRATE AS N UG/M**3	TOTL NO3 AS N UG/M**3
# OF SAMPLES	:	355.0	354.00	355.00	355.000	354.00	354.00
MAXIMUM	:	56.4	43.73	2.40	9.704	3.24	4.36
MINIMUM	:	0.0	0.00	0.00	0.000	0.00	0.00
RANGE	:	56.4	43.73	2.40	9.704	3.24	4.36
ARITH. MEAN	1	8.3	5.05	0.52	1.535	0.52	1.04
ARITH. STD. DEV	:	7.8	5.24	0.47	1.440	0.56	0.77
GEOM. MEAN	:	5.5	3.43	0.33	1.056	0.33	0.76
1ST QUARTILE	:	3.2	1.88	0.16	0.556	0.14	0.43
2ND QUARTILE	:	6.3	3.39	0.35	1.083	0.31	0.88
3RD QUARTILE	:	10.8	5.98	0.77	2.148	0.69	1.48

+ 63 + 68 + 64 + 64 + 64 + 64 + 64